

Texas Potato Breeding Report 2019



The Texas A&M AgriLife Research
Department of Horticultural Sciences
Texas A&M University

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College Station and Lubbock

J. Creighton Miller, Jr

March 6, 1940 – November 3, 2019

Creighton began his career at the Lubbock Center in 1972 and started the Texas Potato Breeding and Variety Development Program from scratch. Creighton released or co-released 19 potato varieties, one mungbean, and two cowpea varieties Creighton released four highly successful, widely adapted Russet Norkotah strain selections. His last two russet releases (Reveille Russet and Vanguard Russet) continue to gain in popularity. He was a mentor to almost all in the potato research community and friend to many in the industry. His impact on the potato world will be felt for years to come.

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Prefix Source Key for Numbered Advanced Selections:

A = cross made in Aberdeen, Idaho and selected in Idaho

AC = cross made in Aberdeen, Idaho and selected in Colorado

ADX = cross (diploid X diploid) made in Aberdeen, Idaho, and selected in Idaho

AF = cross made and selected in Maine at Aroostook Farm, Presque Isle

AND = cross made in Aberdeen, Idaho and selected in North Dakota

AO = cross made in Aberdeen, Idaho and selected in Oregon

AOA= cross made in Aberdeen, Idaho, seedling produced in Oregon, and selected in, Idaho

AOTX = AORTX = cross made in Aberdeen, Idaho, tuberlings produced in Corvallis, Oregon greenhouse, and original field selection in Texas

ATD = cross (tetraploid X diploid) made in Aberdeen, Idaho and selected in Idaho

ATTX = cross made in Aberdeen, Idaho, tuberlings produced in College Station, Texas greenhouse, and original field selection in Texas

ATX = cross made in Aberdeen, Idaho and selected in Texas

B = cross made in Beltsville, Maryland and selected in Maine

BC = cross made in Beltsville, Maryland and selected in Colorado

BO = cross made in Beltsville, Maryland and selected in Oregon

BN = cross made in Beltsville, Maryland and selected in North Dakota

BTX = cross made in Beltsville, Maryland and selected in Texas

CO = cross made and selected in Colorado

COTX = cross made in Colorado and selected in Texas

DT = cross made in North Dakota and selected in Texas

FL = cross made and selected by Frito-Lay

JTTX = cross made by USDA/ARS Madison, Wisconsin, tuberlings produced in College Station, Texas greenhouse, and original field selection in Texas

MB = cross made in Minnesota and selected in Maine (Beltsville, Maryland program)

MN = cross made and selected in Minnesota

MS “letter” = cross made and selected in Michigan with ‘letter’ indicating year of selection with 1988(A) as year 1 of the program

ND = cross made and selected in North Dakota

NDA= cross made in North Dakota and selected in Idaho (Aberdeen)

NDC = cross made in North Dakota and selected in Colorado

NDO = cross made in North Dakota and selected in Oregon

NDTX = cross made in North Dakota and selected in Texas

NY = cross made and selected in New York

OR = cross made and selected in Oregon

PA = cross made and selected in Prosser, Washington

POR = cross made in Prosser, Washington and selected in Oregon

TX = cross made and selected in Texas

TXA = cross made in Texas and selected in Idaho (Aberdeen)

TXAV = cross made in Texas, selected in Idaho (Aberdeen) and reselected in Alberta, Canada

TXND = cross made in Texas and selected in North Dakota

TXNS "numbers" = Texas selections (strains) out of Russet Norkotah made by Texas program

TXYG "numbers" = Texas selections (strains) out of Yukon Gold made by Texas program

VC = cross made in Lethbridge, Alberta and selected in Colorado

Variety strain "numbers" = selections (strains) out of various varieties made by Gene Shaver in Nebraska

Variety strain "letters" = selections (strains) out of various varieties made by Warren Trank in Nebraska

Other Codes:

North Dakota

A =

B = Late Blight

C = Colorado Potato Beetle

Idaho

T = Selected in Tetonia

E = Early selection

Texas

Spl = Splash

RE = Red Eye

td = tetraploid x diploid

dd = diploid x diploid

ZC = Zebra Chip tolerant

PVY = PVY resistant

LB = Late Blight resistant

Mission Statement

The mission of the Texas Potato Breeding and Variety Development Program of Texas A&M AgriLife Research is to identify and/or develop improved varieties adapted to the diverse Texas environmental conditions that will result in increased profits for the industry and provide superior products for consumers.

Impact Statement

Since the inception of the Texas Potato Breeding and Variety Development Program in 1973, 2,753,304 seedlings have been grown for selection in Texas, from which 13,518 original selections have been made. Nineteen improved varieties have been developed/co-developed and/or released from this program. Most of the russet potatoes grown in Texas in 2019 were to the improved Texas Russet Norkotah strains. When this program was initiated in 1973, the average yield of the summer crop in Texas was about 200 cwt/a. Over the past several years, Texas recorded the highest summer crop yields in the nation (ranging from 440-465 cwt/a) among the nine states producing a summer crop.

In addition, the farm gate value of the crop has grown from less than \$20 million to about \$120 million, with an annual economic impact to the state in is estimated to exceed \$300 million. The Texas Russet Norkotah selections (TXNS112, TXNS278, and TXNS296) collectively ranked third (in acreage) among the varieties accepted for seed certification in 2018. Russet Burbank and the Frito-Lay varieties ranked above these three selections. Certified seed acreage of the Texas Russet Norkotah strain selections continued to increase in 2019. Reveille Russet, released in 2015, is gaining rapid acceptance (16 licensees in 7 States), with demand far exceeding seed supply. The release was published in The American Journal of Potato Research in 2018.

Introduction

Program Summary

The Texas Potato Breeding and Variety Development Program used two main locations in the 2019 growing season (Table 1). The first planting was near Springlake on March 21st to 26th and harvested on July 10th, to August 12th. This location included nine replicated trials, first generation seedlings for selection, a maturity trial with seven advanced Texas selections, a heat stress trial, and a commercial microorganism test trial. The second planting was near Dalhart on May 13th to 16th and harvested on September 10th, to 26th. twelve replicated trials, the national chip processing trial, a seed increase nursery, first year seedlings for selection, and a commercial microorganism test trial were planted at this site. The Texas A&M Potato Breeding clone bank, consisting of 218 potato clones which comprised 30 chipping clones, 72 russet clones, 31 yellow clones, 68 red clones and 17 purple clones, and reference varieties were planted in Dalhart with two replications.

The Texas program entered three selections (ATTX05175s-1R/Y, ATX06264s-4R/Y, and COTX04193s-2R/Y) in the Western Regional Red/ Specialty Trial, and one selection in the Western Regional Russet Trial (COTX05095-2Ru/Y). The program also entered one selection in the Southwest Regional Russet Trial (COTX08322-10Ru) and three selections in the Southwest Regional Chip Trial (ATTX07042-3W, TX09403-15W and TX09403-21W). These trials were conducted at multiple locations in six western states.

The Texas program had three entries (NDTX12135-1W, NDTX14362AB-1W, and NDTX1246-5W/Y) in the Potato USA Fast-Track National Chip Processing Trial. Six entries (AORTX09033-11W, ATX13134-3W/Y, NDTX13280CB-3W, ATTX07042-3W, TX09403-15W, and TX09403-21W) were entered in the Early Generation Southern Selection trial.

The program also continued to stress virus testing, clean-up, and minituber multiplication of several selected clones. A successful field day was held on July 18th at Springlake and was well attended by over 70 growers and collaborators from Mexico to Canada.

Single Hill Selections

In 2019, 73,286 first year seedling tubers, resulting from 403 different parental combination or families (crosses), were grown for selection. Some 29,718 seedling tubers were planted on the Barrett Farm near Springlake while 51,778 were planted at CSS Farm near Dalhart. These included seedling tubers were provided by Rich Novy, Idaho (10,582), David Holm, Colorado (20,019), and Susie Thompson, North Dakota (10,819). A total of 580 (0.8% selection rate) original selections were made from this material (Figure 1).

True Potato Seedling Tuber Production

The 2019 first year seedling tubers from Texas (80,575) were grown from true seed during the fall of 2018 at College Station and Lubbock. These seed were from crosses made in College Station. Texas also sent second and third-size seedling tubers to Idaho (6,913), Colorado (22,379), North Dakota (15,469) and Minnesota (5,011).

In the 2018-19 crossing block we included 72 parents with a 39% success rate which produced 202 families. Approximately 22,402 true seed were produced.

Table 1. Trial locations, name of trial, number of entries, and number of plots evaluated in 2019.

Springlake			Dalhart		
Trial	# of Entries	# of Plots	Trial	# of Entries	# of Plots
Field day Russets (not reported)	94	94	National Chip	132	169
Field day Red/Specialty(not reported)	52	52	Western and Southwestern Regional Chip	10	40
Western and Southwestern Regional Russet	24	95	Western and Southwestern Regional Russet	26	104
Western and Southwestern Regional Red/Specialty	6	24	Western and Southwestern Regional Red/Specialty	6	24
Western and Southwestern Regional White/Yellow	9	36	Western and Southwestern Regional White/Yellow	9	36
Texas Advanced Russet Selection	7	26	Texas Advanced Chip Selection	33	132
Texas Advanced Red/Specialty Selection	19	70	2019 4Hill Chip Selection	118 (11 advanced)	118
Texas Advanced White/Yellow Selection	5	20	Texas Advanced Russet Selection	17	68
Maturity	11	160	2019 4Hill Russet Selection	92 (14 advanced)	92
Microbial (not reported)	1	32	Texas Advanced Red/Specialty Selection	25	100
Commercial (not reported)	7	21	2019 4Hill Red Selection	37 (5 advanced)	37
Heat Stress - Early	10	40	Texas Advanced Red/Yellow Selection	5	20
Heat Stress - Late	12	42	2019 4Hill Red/Yellow Flesh Selection	61 (5 advanced)	61
Skin Set	1	40	Texas Advanced White/Yellow Selection	6	24
Total	88	606	2019 4Hill White/Yellow Flesh Selection	28 (1 advanced)	28
			2019 4Hill Small Potato Selection	66 (8 advanced)	66
			2019 4Hill Fingerling Potato Selection	9 (5 advanced)	9
			2019 4Hill Purple Potato Selection	34 (10 advanced)	34
			Microbial (not reported)	1	16
			Commercial (not reported)	13	52
			Breeding Clone Bank	218	450
			Total	1060	1708
			Total Entries and Plots	1148	2314

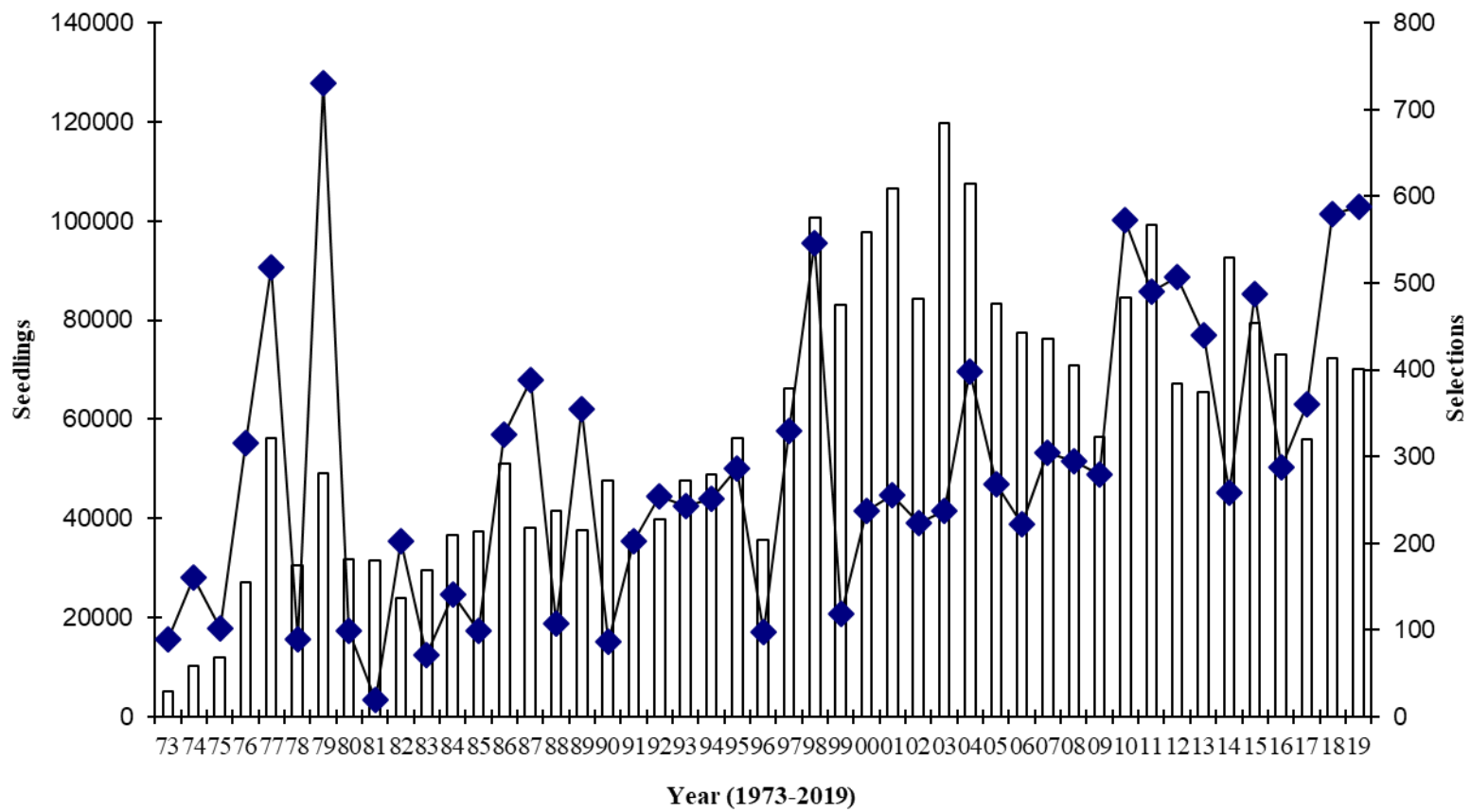


Figure. 1. Number of first year seedling tubers grown for original selection and number of selections made since the inception of the Texas Potato Variety Development Program.

Second-Year Field Selections

Out of 359 second-year clones (4hill), 59 were selected (16%).

Breeding trials

The objectives of the breeding trials were: (1) to test advanced selections and named varieties to determine their potential as replacement varieties for those presently grown in Texas, and (2) to identify potential parents for use in the Texas breeding program. Some 65 advanced selections/varieties were tested in replicated and non-replicated trials near Springlake, and 1060 entries were evaluated near Dalhart. A total of 2,176 plots were planted and harvested at the two locations. A seed increase nursery was grown at the San Luis Valley Research Center, Center, Colorado, by Dr. David Holm.

Since 1973, a total of 36,664 entries have been evaluated in replicated trials (Figure 2). Findings from the Texas Potato Variety Development Program trials have resulted in the release of several improved varieties which have contributed significantly to the competitiveness, sustainability, and profitability of the potato industry.

Table A for each trial provides basic information regarding total yield and grade distribution of individual entries. Tables B, C, D, E, and F provide a more in-depth insight regarding variety characteristics. General notes on the entries can be found in Appendix A at the end of this report. Likewise, parentage can be found in Appendix B.

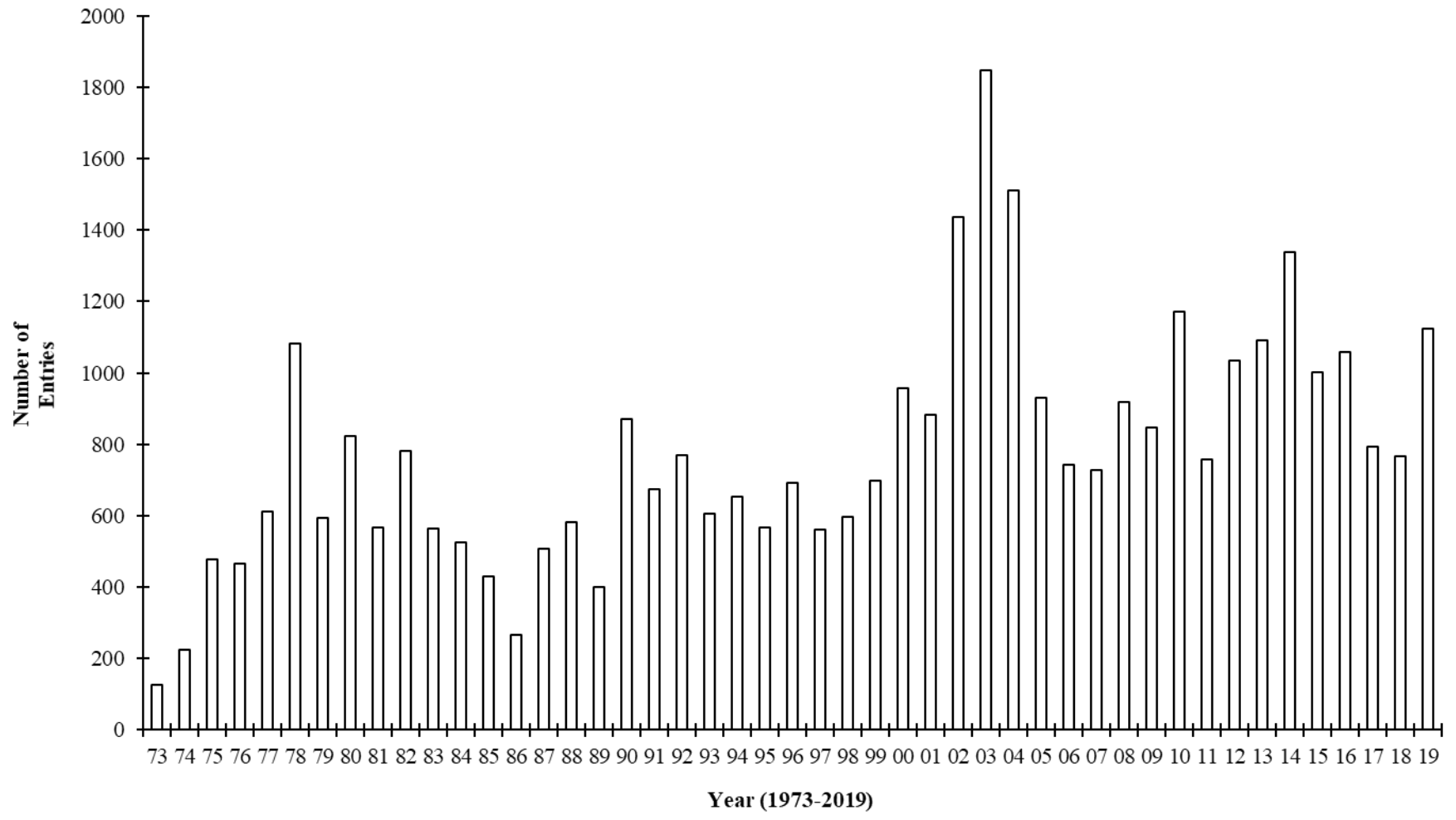


Figure 2. Number of varieties and advanced selections tested for their adaptability to Texas environmental conditions each year since the inception of the Texas Potato Variety Development Program in 1973.

Springlake Trials, 2019

Summary of growing conditions:

The trials were planted near Springlake (34° 8'6.97"N, 102°21'51.18"W) on March 21st to 26th and harvested on July 10th, 14th, and August 13th. Standard cultural practices for the area were used (Table 2). These trials were subjected to above average precipitation in the third and fourth weeks of August.

Trials conducted:

- Field day Russets (reported in 2019 Field Day Report at potato.tamu.edu)
- Field day Red/Specialty (reported in 2019 Field Day Report at potato.tamu.edu)
- Western and Southwestern Regional Russet
- Western and Southwestern Regional Red/Specialty
- Western and Southwestern Regional White/Yellow
- Texas Advanced Russet Selection
- Texas Advanced Red/Specialty Selection
- Texas Advanced White/Yellow Selection
- Maturity
- Heat Stress Early (not reported)
- Heat Stress Late (not reported)
- Skin Set (not reported)
- Microbial (not reported)
- Commercial (not reported)

Table 2. Environmental and cultural inputs for the 2019 Springlake Trials.

Location:

Springlake, Texas

Soil Type

Tivoli Fine Sand

Seed Source

Oregon, Colorado, Nebraska, Texas, North Dakota, Idaho, and Canada

Date:

		DAP
Planted	March 21, 2019	
Vines Killed (Red, Red/Yellow, Small)	June 28, 2019	96
Vines Killed (Chip, White Yellow)	June 28, 2019	96
Vines Killed (Russet)	July 29, 2019	123
Harvested (Red/Specialty)	July 10, 2019	102
Harvested (White/Yellow)	July 11, 2019	102
Harvested (Russet)	August 12, 2019	136

Plot Information:

Size of plots	21'
Spacing between hills	9"
Spacing between rows	36"
Hills per plot	28
Number of rows	2
Number of reps	4

Method of Harvest:

Two-row drag digger, with hand pick up

Fertilizer:

Application:

72-33-42.5# per acre

Irrigation:

Center Pivot

Seed Treatment Applied:

Cruiser Maxx Vibrance

Insecticide:

Movento, Minecto Pro, Sivanto, Wrangler

Fungicides Applied:

Scala, Luna Tranquility, NUCOP, Miravis Prime

Headline

Herbicides Applied:

Bronc Triple, Dual Magnum, Matrix, Makaze, Eptaam 7E

Environmental Factors:

These trials were subjected to strong winds, hail damage, with above average precipitation in the third and fourth weeks of August

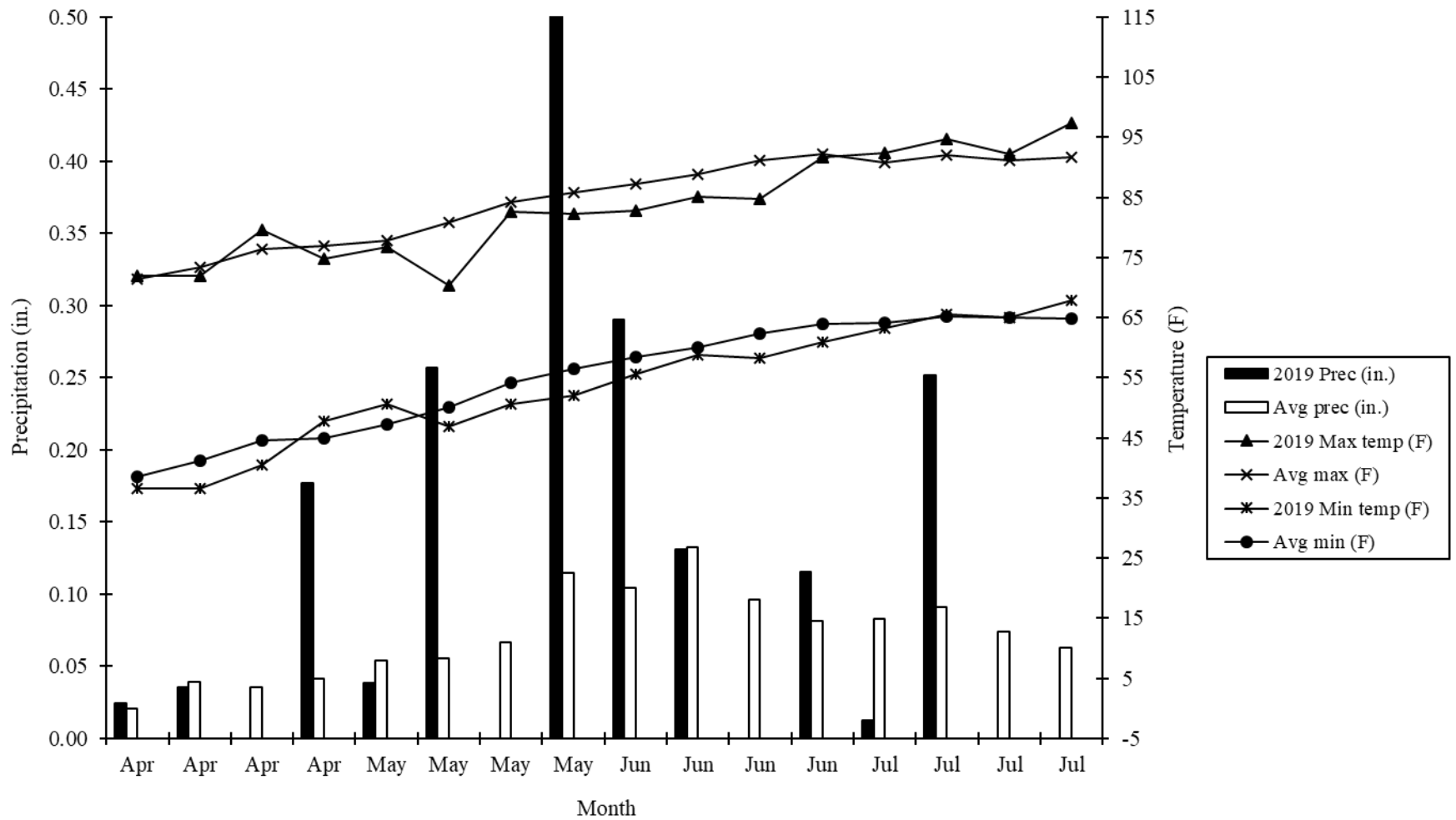


Figure 3. Weekly minimum/maximum temperatures and precipitation for the 2019 growing season near Springlake, Texas compared to the average minimum/maximum temperatures and precipitation (1949-2019).

Western and Southwestern Regional Trials

The Western Regional Trials were grown at 12 sites throughout the western United States as part of the WERA-27 project, with cooperators in California, Oregon, Washington, Idaho, Colorado, and Texas.

The Southwestern Regional Potato Research Program includes California, Colorado, and Texas. The objective is to evaluate promising advanced selections from the Texas and Colorado breeding programs. Entries that are successful in the SW trials will be tested in the Western Regional Trials.

Western and Southwestern Regional Russet Trial, Springlake

This trial consisted of twenty-five entries, including the check varieties Ranger Russet, Russet Burbank Russet Norkotah, and Shepody.

Results: (Springlake Tables 1a, 1b, 1c, 1d, and 1e)

- Reveille Russet, COTX08063-2Ru, Vanguard Russet, and A071012-4BF had the high general ratings and best of trial designation. A07769-4 also had a high general rating (Table 1a).
- AO02183-2 had the highest total yield, while Reveille Russet had the highest marketable yield. A07061-6 had the highest yield of less than 4 oz. tubers. Russet Burbank had the highest yield of culls/No. 2 tubers (Table 1a).
- Reveille Russet had the highest percentage of marketable yield. COTX05095-2Ru/Y had the highest percent of less than 4 oz. tubers. Russet Burbank had the highest percent of culls/No. 2 tubers (Table 1b).
- COTX08063-2Ru had the highest specific gravity (Table 1b).
- CO10085-1RU had the highest average number of tubers per plant (Table 1c).
- OR12133-10, A07061-6, A071012-4BF, CO10085-1RU, and A08433-4VR were the latest in maturity, while COTX08322-10Ru, Russet Norkotah, and CO10091-1RU were the earliest in maturity (Table 1c).

- Russet Burbank, Ranger Russet, Shepody, CO09076-3RU and AO02183-2 had severe knobs, while AO02183-2 had the highest percent of vascular discoloration

Comments on entries:

- AO02183-2 Oblong Russet high tuber number++++, knobs+++ non uniform shape++, skin ok, good skin, heat sprouts++ chain tubers+, other deformities seen, non-uniform size+, many eyes, many smalls, nice russet skin
- OR12133-10 Long White skinny++ long heat sprouts+++ light russet, too light, pointed++, curvy shape, light skin, high tuber number+ uneven shape, nice long+
- A07061-6 Oval White round+++, heat sprouts+++, chain tubers++, good tuber number+, knobs++, different shapes, good and light skin, high tuber number+, buff skin, flat, small++, light russet, attached stolons
- A071012-4BF Oval Russet long chain tubers+ and heat sprouts++, shape ok, poor skin (minor), knobs++, pointy+, but good number+, rots, bad shape, non-uniform russet skin, BOT
- POR12NCK50-1 Oblong Russet high tuber number+++, chain tubers++, knobs++ heat sprouts++, good russet skin, poor skin, irregular shape angular+
- CO10085-1RU Oval Russet high tuber number++, knobs, good skin, late+, many chain tubers+, heat sprouts++, round shape and non-uniform size, lots of culls, drops++
- Ranger Russet Long Russet knobs+++ heat sprouts, chain tubers++, good tuber number skinny tubers, rot, irregular shape, rough moon shapes
- AOR07781-5 Oblong Russet long, high tuber number++, heat sprouts+, deformed, moon shaped++, pointed++, good skin, lower number, knobs++, good yield, light eyes, many eyes, bowling pin
- Reveille Russet Oblong Russet some rot, nice shape and size, good shape, skinning, good yield, large tubers, nice, BOT++++

- Russet Burbank Oval Russet skinny, heat sprouts++, knobs++, skin set, medium tuber growth, chain tubers++, good number, shape issues, pointy, all culls, linked tubers++, high tuber number+, deformed tubers++
- COTX08063-2Ru Oblong Russet good tuber number++, irregular shapes, chain tubers+, rot, good size, knobs+, high tuber number, clean, heat sprouts, nice shape and size+, advance, BOT
- Vanguard Russet Oval Russet smaller than reveille, good tubers+, chain tubers+, heat sprouts+, poor shape, nice, short tubers, wide, snow-white flesh, high tuber no, BOT
- A10021-5TE Long Russet long moon shape+, long skinny, pointed++, heat sprouts++ long tubers+, knobs+, nice tuber size, shriveled
- A07769-4 Oval Russet nice skin, lower yield, round tubers, heat sprouts+, knobs, medium growth, chain tubers, smaller shape, good number, nice shape bulky, excellent size and shape, nice russet skin, soft rot on stolon end +, BOT
- CO10087-4RU Oblong Russet chain tubers, heat sprouts+, knobs, good tuber number+ and skin color but sprouts, light skin, a little flat, nice shape, nice russet skin+
- CO11009-3RU Oblong Russet low tuber number++, knobs++, heat sprouts+, chain tubers+ good skin, shape issues, good number skinny tubers, some very long tubers, pointy, soft stolon ends ++, good shape and size
- A08433-4VR Oblong Russet heat sprouts++, chain tubers++, deformed, fat, poor skin, lower number of tubers+, good size+, moon shape, light skin, medium tuber number, non-uniform russet skin flat, rotten tubers, pointy, shriveled tubers
- Shepody Oblong White smooth skin, rotten++, long tubers, heat sprouts++, pointy+, light skin, sprouting, poor shape, low tuber number, medium number knobs++
- CO09076-3RU Oblong Russet long, tuber number, deformed, pointed++, knobs+, thin tubers, heat sprouts+ chain tubers, bad shape, good number+, mostly culls, bottle shaped, many rotten++

- COTX08322-10Ru Oval Russet good tuber numbers+, round, big tubers, chain tubers+++ , not uniform shape and size, low tuber number, knobs+, small size and shape, irregular skin, blocky, nice shape, nice russet skin+, drop
- Russet Norkotah Oblong Russet small, pointy, heat sprouts++, good tuber number, chain tubers+, knobs, bad type, nice shape and, size+
- CO09205-2RU Oblong Russet small, heat sprouts+, chain tubers+, few tubers+, nice russet skin, knobs
- CO10091-1RU Oval Russet very low yield, small shape, knobs, chain tubers, roundish, good tuber number, different shapes, rot, alligator skin, very low tuber number, weird russet pattern, nice shape, not uniform russet skin, heavy russet skin
- COTX05095-2Ru/Y Round Russet heat sprouts+, smaller, rot, roundish++, yellow flesh, low tuber number+, irregular shape, alligator skin+, drop
- A08422-4VRsto Round Russet low tuber number++, heat sprouts, medium number, rot, chain tubers+, bad number knobs, shriveled soft tubers, non-uniform russet skin

Summary

Reveille Russet, COTX08063-2Ru, Vanguard Russet, and A071012-4BF were the best entries based on all factors.

Disposition: (Springlake and Dalhart)

COTX08063-2Ru Move to SW. High SG in Springlake and Dalhart, over all performed better in Springlake.

COTX08322-10Ru Advance to WR. Performed very well in Dalhart.

COTX05095-2Ru/Y Graduated from WR. Do not promote, use as parent.

Springlake
Table 1a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 25 entries in the Western and Southwest Regional Russet and Advanced Texas selections Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Field	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz						10-18 oz
AO02183-2	WR19	332.2	101.6	61.8	31.8	8.0	0.0	160.2	70.4	3.5	3.8
OR12133-10	WR19	290.1	121.4	74.2	39.8	7.3	0.0	116.2	52.5	3.5	3.8
A07061-6	WR19	261.4	40.7	33.4	7.3	0.0	0.0	165.5	55.1	3.4	3.4
A071012-4BF	WR19	260.6	95.9	46.0	37.2	12.8	2.1	80.3	82.3	3.6	4.0
POR12NCK50-1	WR19	253.8	66.6	54.0	11.1	1.5	0.0	118.9	68.2	3.6	3.6
CO10085-1RU	SW19	236.5	12.9	12.9	0.0	0.0	0.0	91.8	131.8	2.9	3.3
Ranger Russet	WR19	226.5	58.2	34.7	14.9	8.6	0.0	64.5	103.9	3.5	3.5
AOR07781-5	WR19	225.2	81.2	25.8	29.0	26.4	0.0	50.8	93.2	3.4	3.9
Reveille Russet	ADVTX19	222.5	157.3	59.9	62.2	35.1	2.2	40.2	22.9	4.1	4.5
Russet Burbank	WR19	217.5	3.5	3.5	0.0	0.0	0.0	30.6	183.5	3.2	3.4
COTX08063-2RU	ADVTX19	205.0	88.3	56.2	22.7	9.4	0.0	79.3	37.4	3.5	3.9
TX08352-5Ru	ADVTX19	186.3	80.5	53.0	23.1	4.4	0.0	93.0	12.9	3.5	4.0
A10021-5TE	WR19	171.6	67.7	30.9	20.1	16.8	0.0	51.7	52.3	3.5	3.7
A07769-4	WR19	161.4	78.7	40.1	22.1	16.4	0.0	67.8	15.0	3.6	4.0
CO10087-4RU	WR19	161.1	64.4	46.6	14.5	3.3	0.0	75.8	20.9	3.4	3.7
CO11009-3RU	SW19	153.1	77.5	30.8	24.6	22.1	0.0	25.5	50.0	3.3	3.7
A08433-4VR	WR19	141.4	42.6	21.3	10.9	10.5	0.0	42.4	56.4	3.2	3.4
Shepody	WR19	138.6	27.1	13.1	10.6	3.5	0.0	21.7	89.8	3.1	3.3
CO09076-3RU	WR19	126.2	8.4	6.1	2.2	0.0	0.0	29.1	88.7	3.2	3.1
COTX08322-10RU	SW19	114.1	51.6	37.7	7.9	6.1	0.0	45.8	16.7	3.4	3.6
Russet Norkotah	WR19	113.6	43.0	25.2	16.7	1.2	0.0	46.3	24.2	3.3	3.7
CO09205-2RU	WR19	98.9	23.7	19.6	4.1	0.0	0.0	52.7	22.5	3.1	3.1
CO10091-1RU	WR19	92.9	29.9	20.7	9.2	0.0	0.0	55.4	7.6	3.3	3.4
COTX05095-2Ru/Y	WR19	90.5	18.3	17.3	1.0	0.0	0.0	60.7	11.4	2.9	3.2
A08422-4VRsto	WR19	86.2	36.6	25.0	9.9	1.7	0.0	42.7	6.8	2.9	3.4
Average		182.7	59.1	34.0	17.3	7.8	0.2	68.4	55.1	3.3	3.6
L.S.D. (.05)		42.5	23.5	12.6	14.4	10.0	ns	22.7	26.6	0.4	0.3

¹ 1=very poor to 5= excellent

Springlake
Table 1a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 25 entries in the Western and Southwest Regional Russet and Advanced Texas selections Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Field	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz						10-18 oz
AO02183-2	WR19	332.2	101.6	61.8	31.8	8.0	0.0	160.2	70.4	3.5	3.8
OR12133-10	WR19	290.1	121.4	74.2	39.8	7.3	0.0	116.2	52.5	3.5	3.8
A07061-6	WR19	261.4	40.7	33.4	7.3	0.0	0.0	165.5	55.1	3.4	3.4
A071012-4BF	WR19	260.6	95.9	46.0	37.2	12.8	2.1	80.3	82.3	3.6	4.0
POR12NCK50-1	WR19	253.8	66.6	54.0	11.1	1.5	0.0	118.9	68.2	3.6	3.6
CO10085-1RU	SW19	236.5	12.9	12.9	0.0	0.0	0.0	91.8	131.8	2.9	3.3
Ranger Russet	WR19	226.5	58.2	34.7	14.9	8.6	0.0	64.5	103.9	3.5	3.5
AOR07781-5	WR19	225.2	81.2	25.8	29.0	26.4	0.0	50.8	93.2	3.4	3.9
Reveille Russet	ADVTX19	222.5	157.3	59.9	62.2	35.1	2.2	40.2	22.9	4.1	4.5
Russet Burbank	WR19	217.5	3.5	3.5	0.0	0.0	0.0	30.6	183.5	3.2	3.4
COTX08063-2RU	ADVTX19	205.0	88.3	56.2	22.7	9.4	0.0	79.3	37.4	3.5	3.9
TX08352-5Ru	ADVTX19	186.3	80.5	53.0	23.1	4.4	0.0	93.0	12.9	3.5	4.0
A10021-5TE	WR19	171.6	67.7	30.9	20.1	16.8	0.0	51.7	52.3	3.5	3.7
A07769-4	WR19	161.4	78.7	40.1	22.1	16.4	0.0	67.8	15.0	3.6	4.0
CO10087-4RU	WR19	161.1	64.4	46.6	14.5	3.3	0.0	75.8	20.9	3.4	3.7
CO11009-3RU	SW19	153.1	77.5	30.8	24.6	22.1	0.0	25.5	50.0	3.3	3.7
A08433-4VR	WR19	141.4	42.6	21.3	10.9	10.5	0.0	42.4	56.4	3.2	3.4
Shepody	WR19	138.6	27.1	13.1	10.6	3.5	0.0	21.7	89.8	3.1	3.3
CO09076-3RU	WR19	126.2	8.4	6.1	2.2	0.0	0.0	29.1	88.7	3.2	3.1
COTX08322-10RU	SW19	114.1	51.6	37.7	7.9	6.1	0.0	45.8	16.7	3.4	3.6
Russet Norkotah	WR19	113.6	43.0	25.2	16.7	1.2	0.0	46.3	24.2	3.3	3.7
CO09205-2RU	WR19	98.9	23.7	19.6	4.1	0.0	0.0	52.7	22.5	3.1	3.1
CO10091-1RU	WR19	92.9	29.9	20.7	9.2	0.0	0.0	55.4	7.6	3.3	3.4
COTX05095-2Ru/Y	WR19	90.5	18.3	17.3	1.0	0.0	0.0	60.7	11.4	2.9	3.2
A08422-4VRsto	WR19	86.2	36.6	25.0	9.9	1.7	0.0	42.7	6.8	2.9	3.4
Average		182.7	59.1	34.0	17.3	7.8	0.2	68.4	55.1	3.3	3.6
L.S.D. (.05)		42.5	23.5	12.6	14.4	10.0	ns	22.7	26.6	0.4	0.3

¹ 1=very poor to 5= excellent

Springlake
Table 1b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 25 entries in the Western and Southwest Regional Russet and Advanced Texas selections Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
AO02183-2	WR19	30.9	18.7	9.7	2.5	0.0	47.9	21.2	1.068	14.6	Oblong	Russet
OR12133-10	WR19	41.4	25.9	13.2	2.3	0.0	40.5	18.0	1.058	12.8	Long	White
A07061-6	WR19	15.6	12.8	2.7	0.0	0.0	64.1	20.3	1.062	13.6	Oval	White
A071012-4BF	WR19	36.7	17.8	13.8	5.1	0.9	31.1	31.2	1.075	15.9	Oval	Russet
POR12NCK50-1	WR19	26.2	21.3	4.3	0.5	0.0	47.0	26.9	1.071	15.1	Oblong	Russet
CO10085-1RU	SW19	6.8	6.8	0.0	0.0	0.0	37.8	55.4	1.066	14.3	Oval	Russet
Ranger Russet	WR19	25.8	15.5	6.6	3.8	0.0	28.5	45.7	1.063	13.7	Long	Russet
AOR07781-5	WR19	37.4	12.2	14.2	11.0	0.0	22.7	39.9	1.070	15.0	Oblong	Russet
Reveille Russet	ADVTX19	71.1	27.6	27.9	15.6	1.0	17.9	9.9	1.058	12.9	Oblong	Russet
Russet Burbank	WR19	1.6	1.6	0.0	0.0	0.0	14.4	84.0	1.062	13.6	Oval	Russet
COTX08063-2RU	ADVTX19	43.1	27.5	11.2	4.5	0.0	38.4	18.5	1.079	16.7	Oblong	Russet
TX08352-5Ru	ADVTX19	42.7	28.3	12.1	2.3	0.0	50.3	7.0	1.058	12.8	Oval	Russet
A10021-5TE	WR19	40.4	17.9	12.3	10.1	0.0	29.3	30.3	1.068	14.7	Long	Russet
A07769-4	WR19	48.3	25.5	13.6	9.2	0.0	42.6	9.1	1.065	14.1	Oval	Russet
CO10087-4RU	WR19	40.8	29.7	9.3	1.9	0.0	45.9	13.2	1.071	15.2	Oblong	Russet
CO11009-3RU	SW19	50.6	19.7	15.1	15.7	0.0	16.7	32.8	1.066	14.4	Oblong	Russet
A08433-4VR	WR19	30.9	14.3	7.8	8.8	0.0	30.5	38.6	1.057	12.6	Oblong	Russet
Shepody	WR19	18.4	10.0	6.6	1.7	0.0	17.6	64.0	1.065	14.1	Oblong	White
CO09076-3RU	WR19	6.3	4.3	1.9	0.0	0.0	22.8	71.0	1.061	13.3	Oblong	Russet
COTX08322-10RU	SW19	44.8	33.3	6.3	5.2	0.0	40.0	15.2	1.056	12.4	Oval	Russet
Russet Norkotah	WR19	37.5	22.3	14.3	0.9	0.0	40.9	21.7	1.060	13.3	Oblong	Russet
CO09205-2RU	WR19	26.1	19.6	6.5	0.0	0.0	51.7	22.1	1.060	13.2	Oblong	Russet
CO10091-1RU	WR19	33.4	23.4	10.0	0.0	0.0	58.5	8.1	1.062	13.6	Oval	Russet
COTX05095-2Ru/Y	WR19	19.7	18.8	1.0	0.0	0.0	67.7	12.5	1.062	13.5	Round	Russet
A08422-4VRsto	WR19	41.4	29.5	10.1	1.7	0.0	50.6	8.1	1.066	14.2	Oblong	Russet
Average		32.7	19.4	9.2	4.1	0.1	38.2	29.0	1.064	14.0		
L.S.D. (.05)		10.0	6.9	7.0	5.6	ns	8.9	8.1	0.004	0.7		

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Table 1c.

Average number of tubers and stems per plant, tuber weight, percent stand 40 and 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 25 entries in the Western and Southwest Regional Russet and Advanced Texas selections Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Number Stems/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
							Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
AO02183-2	WR19	10.4	2.2	2.6	100	100	1.8	4.0	3.8	3.9	24	1.66	1.16	22.7	13.7	11.8
OR12133-10	WR19	7.6	1.8	3.1	100	100	1.8	4.1	5.0	3.9	1	2.18	1.09	26.0	11.9	10.9
A07061-6	WR19	9.9	2.1	2.2	100	100	1.8	3.9	5.0	3.9	3	1.36	1.18	20.6	15.1	12.8
A071012-4BF	WR19	6.7	2.0	4.6	73	98	1.8	3.7	5.0	3.8	1	1.62	1.13	23.7	14.9	13.1
POR12NCK50-1	WR19	9.2	1.9	3.2	74	97	1.8	3.8	4.0	3.7	21	1.55	1.14	22.6	14.6	12.8
CO10085-1RU	SW19	18.5	2.6	1.9	61	95	1.5	3.7	5.0	3.5	0	1.37	1.15	19.6	14.3	12.4
Ranger Russet	WR19	6.8	1.9	3.1	90	98	1.7	3.5	4.9	3.6	3	1.99	1.14	25.0	12.6	11.0
AOR07781-5	WR19	4.7	2.4	4.8	81	97	1.5	3.7	4.3	3.6	11	1.69	1.17	24.8	14.7	12.6
Reveille Russet	ADVTX19	5.3	2.5	5.8	61	96	1.7	3.8	3.7	3.6	29	1.62	1.14	23.6	14.5	12.8
Russet Burbank	WR19	6.8	1.8	3.0	89	99	1.5	3.7	4.6	3.6	9	1.45	1.21	19.4	13.4	11.0
COTX08063-2RU	ADVTX19	7.9	1.8	3.7	64	85	1.9	3.4	4.5	3.6	14	1.71	1.15	23.2	13.6	11.9
TX08352-5Ru	ADVTX19	5.5	2.1	3.1	91	100	1.6	3.7	3.6	3.7	30	1.46	1.15	21.5	14.7	12.8
A10021-5TE	WR19	7.8	2.2	4.0	53	77	1.9	3.1	4.8	3.3	8	2.10	1.19	26.9	12.8	10.8
A07769-4	WR19	5.9	2.0	3.9	61	79	1.6	3.1	4.0	3.5	13	1.45	1.15	21.6	14.9	12.9
CO10087-4RU	WR19	7.2	2.3	3.6	52	92	1.5	3.4	3.6	3.4	47	1.71	1.17	23.9	14.0	11.9
CO11009-3RU	SW19	6.8	2.2	4.2	50	75	1.7	2.8	4.9	3.4	3	1.92	1.16	25.5	13.3	11.5
A08433-4VR	WR19	5.6	1.7	3.7	60	76	1.6	3.6	5.0	3.7	5	1.64	1.29	24.0	14.6	11.4
Shepody	WR19	3.9	2.1	4.5	62	78	2.0	3.4	3.9	3.8	24	1.49	1.19	21.3	14.2	12.0
CO09076-3RU	WR19	5.4	2.5	2.9	68	100	1.7	3.6	3.9	3.5	23	1.99	1.16	25.0	12.5	10.8
COTX08322-10RU	SW19	3.5	1.8	3.2	82	98	1.8	3.4	2.9	3.3	54	1.37	1.15	20.6	15.1	13.1
Russet Norkotah	WR19	3.2	1.8	3.3	91	98	1.6	3.5	2.8	3.4	61	1.54	1.14	21.1	13.7	12.0
CO09205-2RU	WR19	7.3	1.8	2.7	41	75	1.9	2.7	3.9	2.9	23	1.62	1.11	21.8	13.5	12.2
CO10091-1RU	WR19	4.5	1.7	2.9	62	78	1.5	3.2	2.6	3.3	63	1.44	1.16	20.8	14.5	12.5
COTX05095-2Ru/Y	WR19	6.2	1.7	2.4	46	66	1.6	2.7	3.3	3.4	43	1.33	1.13	18.8	14.2	12.6
A08422-4VRsto	WR19	2.7	2.4	3.1	88	98	1.7	3.6	3.0	3.4	56	1.46	1.18	21.3	14.7	12.4
Average		6.8	2.1	3.4	72	90	1.7	3.5	4.1	3.5	23	1.63	1.16	22.6	14.0	12.1
L.S.D. (.05)		1.5	0.4	0.6	15	13	0.2	0.4	0.5	0.2	14	0.16	0.06	2.1	0.9	0.9

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

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Table 1d.

Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 25 entries in the Western and Southwest Regional Russet and Advanced Texas selections Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
AO02183-2	WR19	1.0	3.8	3.8	3.8	3.6	5.0	5.0	5.0	3.0	5.0	0	0	43	0
OR12133-10	WR19	1.0	4.8	1.9	4.0	2.0	5.0	5.0	5.0	3.9	4.1	0	3	15	0
A07061-6	WR19	1.0	2.0	2.0	4.0	2.5	5.0	5.0	5.0	3.4	4.5	0	0	10	0
A071012-4BF	WR19	1.0	4.0	3.8	4.0	3.8	5.0	5.0	5.0	3.1	4.5	0	0	3	3
POR12NCK50-1	WR19	1.0	3.3	3.3	4.0	3.8	5.0	5.0	5.0	3.4	4.5	0	0	3	0
CO10085-1RU	SW19	1.0	2.0	3.5	4.0	3.5	5.0	5.0	5.0	2.0	4.5	0	0	8	0
Ranger Russet	WR19	1.0	4.5	3.5	3.8	3.0	5.0	5.0	5.0	3.0	5.0	0	0	10	0
AOR07781-5	WR19	2.0	2.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	3.1	0	0	0	0
Reveille Russet	ADVTX19	1.0	4.1	3.8	4.0	3.8	5.0	5.0	5.0	4.5	4.1	0	0	0	0
Russet Burbank	WR19	1.0	4.0	3.0	3.8	2.5	5.0	5.0	5.0	2.0	4.5	0	0	5	8
COTX08063-2RU	ADVTX19	1.0	3.8	3.6	4.0	3.5	5.0	5.0	5.0	4.0	5.0	0	0	8	0
TX08352-5Ru	ADVTX19	1.0	3.6	3.8	4.0	3.8	5.0	5.0	5.0	5.0	4.1	0	0	0	0
A10021-5TE	WR19	1.0	4.6	4.0	4.0	4.0	5.0	5.0	5.0	3.3	5.0	0	0	25	0
A07769-4	WR19	1.0	3.7	3.7	4.0	4.0	5.0	5.0	5.0	4.4	5.0	0	0	0	0
CO10087-4RU	WR19	1.0	3.8	3.3	4.0	3.7	5.0	5.0	5.0	4.0	5.0	0	0	3	3
CO11009-3RU	SW19	1.0	4.5	4.0	4.0	4.0	5.0	5.0	5.0	3.6	5.0	0	0	0	0
A08433-4VR	WR19	1.0	3.8	2.9	4.0	3.0	5.0	5.0	5.0	3.3	4.5	0	0	15	0
Shepody	WR19	1.0	4.0	1.5	3.8	1.5	5.0	5.0	5.0	2.8	5.0	0	0	20	0
CO09076-3RU	WR19	1.0	3.5	3.8	4.0	3.8	5.0	5.0	5.0	2.3	5.0	0	0	0	0
COTX08322-10RU	SW19	1.0	3.6	4.0	4.0	3.6	5.0	5.0	5.0	4.0	5.0	0	0	5	0
Russet Norkotah	WR19	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	4.4	5.0	0	0	3	3
CO09205-2RU	WR19	1.0	3.0	3.9	4.0	3.8	5.0	5.0	5.0	4.0	5.0	0	0	15	0
CO10091-1RU	WR19	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	4.5	5.0	0	0	0	0
COTX05095-2Ru/Y	WR19	2.6	1.9	4.0	4.0	4.0	5.0	5.0	5.0	4.3	5.0	0	0	5	0
A08422-4VRsto	WR19	1.0	3.3	3.8	3.9	3.8	5.0	5.0	5.0	4.6	5.0	0	0	0	13
Average		1.1	3.5	3.5	4.0	3.5	5.0	5.0	5.0	3.7	4.7	0	0	8	1
L.S.D. (.05)		0.1	0.2	0.2	0.0	0.1	0.0	0.0	0.0	0.5	0.1		0.0	13.8	3.8

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 1e.

Notes and general rating for all reps of 25 entries in the Western and Southwest Regional Russet and Advanced Texas selections Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Notes Field	Notes Grading	General Rating Field	General Rating Grading
AO02183-2	WR19	high tuber number++ knobs++ non uniform shape and size, skin ok, good skin heat sprouts++ knobs+ and chain tubers+, , other deformities seen	high tuber number+ non uniform size knobs many eyes non uniform shape+, many smalls, nice russet skin,	3.7, 3.7, 3.3, 3.4	3.7, 3.8, 3.8, 3.8
OR12133-10	WR19	skinny+ long heat sprouts+++ light russet, too light, sprouts, skinny, pointed+, , , curvy shape	long light skin, high tuber number+ skinny, pointy uneven shape, nice long	3.5, 3.8, 3.4, 3.3	3.8, 3.7, 3.6, 4.2
A07061-6	WR19	small, round+,,, heat sprouts++ and chain tubers++, good tuber number+ , knobs , different shapes, good and light skin	high tuber number+, buff skin and flat, small+, light russet, attached stolons chain tubers+ knobs+ heat sprouts+	3.4, 3.4, 3.3, 3.4	3.3, 3.3, 3.4, 3.5
A071012-4BF	WR19	long chain tubers+ and heat sprouts+, shape ok, poor skin (minor), knobs+, pointy, but good number+, rots, bad shape	pointy, knobs , non uniform russet skin, BOT	3.9, 3.7, 3.6, 3.3	3.6, 4.4, 4.2, 3.8
POR12NCK50-1	WR19	high tuber number++ chain tubers++ and knobs++ heat sprouts++ and good russet skin, poor skin, , ,	irregular shape angular+, high tuber number	3.7, 3.5, 3.5, 3.5	3.5, 3.5, 3.7, 3.6
CO10085-1RU	SW19	high tuber number different shapes and sizes knobs and good skin, late+ and many chain tubers+ and heat sprouts+, round shape and non uniform size	high tuber number+, lots of culls sprouting linked tubers knobs and drops++	3.7, 2.4, 2.6, 2.8	3.4, 3.3, 3.2, 3.2
Ranger Russet	WR19	knobs++ and heat sprouts++, skinny tubers and rots , irregular shape	rough moon shapes knobs+++ and chain tubers+++ , heat sprouts	3.5, 3.7, 3.4, 3.2	3.7, 3.4, 3.4, 3.4
AOR07781-5	WR19	long high tuber number heat sprouts+ and deformed, moon shaped+,, pointed+,, good skin, lower number and knobs , good yield	large tuber number knobs lighter eye area many eyes and pointy+,, parent for ZC tolerance, bowling pin	3.6, 3.2, 3.3, 3.6	3.7, 3.7, 4, 4
Reveille Russet	ADVTX19	some rotten, BOT nice shape and size, good shape, skinning, , good yield and size few chain tubers,	BOT+++ , large tubers, nice	4.3, 4, 4, 4	4.3, 4.4, 4.6, 4.8
Russet Burbank	WR19	skinny deformed heat sprouts++ and knobs, skin set, medium tuber growth chain tubers+,, good number , shape issues and pointy	all culls, linked tubers++ , knobs++ and high tuber number+, deformed tubers, heat sprouts	3.4, 3.7, 2.8, 2.8	3.4, 3.4, 3.3, 3.3
COTX08063-2RU	ADVTX19	good tuber number++ irregular shapes and chain tubers+ with a few heat sprouts, , rots , good size knobs	high tuber number, knobs, clean, heat sprouts nice shape and size+ , nice and advance, BOT	3.6, 3.7, 3.4, 3.4	3.8, 3.8, 3.8, 4.2
TX08352-5Ru	ADVTX19	smaller than reveille, good tubers+ chain tubers+ and heat sprouts+, lesser number and poor shape ,	nice, BOT short tubers, wide snow white flesh, high tuber no	3.8, 3.5, 3.2, 3.3	4.5, 4, 3.8, 3.8
A10021-5TE	WR19	long moon shape+, long skinny and pointed, heat sprouts++ long tubers+, knobs,	pointy+ long nice tuber size, knobs shriveled, skinny	3.5, 3.6, 3.4, 3.3	4, 3.7, 3.6, 3.6
A07769-4	WR19	nice skin, lower yield round tubers heat sprouts+ and knobs , medium growth chain tubers, smaller shape and good number	, nice shape bulky, excellent size and shape BOT nice russet skin, 30%soft rots stolon ends	3.8, 3.4, 3.6, 3.5	3.7, 3.8, 4.5, 4
CO10087-4RU	WR19	lower russet number, chain tubers heat sprouts+ knobs, good tuber number+ and skin color but sprouts, light skin,	a little flat, nice shape nice russet skin+	3.4, 3.5, 3.4,	3.5, 4, 3.7,
CO11009-3RU	SW19	low tuber number++ knobs++ heat sprouts+ and chain tubers+ good skin shape issues, , , good number skinny tubers	some very long tubers and pointy, 50% with soft stolon ends, good shape and size, 20 % with soft stolon end	3.4, 3.6, 3, 3.2	3.6, 3.6, 3.8, 3.8
A08433-4VR	WR19	heat sprouts++ chain tubers++ and deformed, fat, poor skin, lower number of tubers+ and good size+, moon shape, light skin and medium tuber number	non uniform russet skin flat, rotten tubers pointy shriveled tubers	3.4, 3.6, 2.6, 3	3.3, 3.5, 3.4, 3.4
Shepody	WR19	smooth skin rotten++ long tubers heat sprouts+ and pointy, light skin, sprouting, poor shape, low tuber number , medium number knobs +	knobs+ and pointy, heat sprouts+	3.5, 2.5, 3.4, 2.8	3.4, 2.8, 3.5, 3.5
CO09076-3RU	WR19	long tuber number pointy+ deformed and some rotten, pointed, knobs, thin tubers heat sprouts+ chain tubers , bad shape but good number+ ,	mostly culls knobs pointy+ bottle shaped, , many rotten+	3.3, 3.3, 3.2, 2.8	2.6, 3.3, 3.3, 3.2
COTX08322-10RU	SW19	good tuber numbers+, round and big tubers and chain tubers+++ with a few heat sprouts, not uniform shape and size, drop, low tuber number and small pointy heat sprouts+,, good tuber number chain tubers+ knobs, lesser number and bad type	, blocky, nice shape, nice russet skin+	3.8, 2.8, 3.2, 3.6	3.6, 3.3, 3.7, 3.8
Russet Norkotah	WR19		nice shape and size+	3.5, 3.7, 2.8, 3.2	3.6, 3.8, 3.6, 3.6
CO09205-2RU	WR19	smaller heat sprouts+ chain tubers+ and few tubers+, , ,	nice russet skin, sprouts and knobs, small	3.3, 2.8, 3, 3.2	3, 3, 3, 3.4
CO10091-1RU	WR19	very low yield small shape and knobs with chain tubers, roundish, good tuber number different shapes and rots, alligator skin	very low tuber number weird russet pattern, nice shape, not uniform russet skin, heavy russet skin	3.1, 3.4, 3.3, 3.3	2.8, 3.5, 3.6, 3.6
COTX05095-2Ru/Y	WR19	heat sprouts+ smaller rounder and rotten, roundish+,, yellow flesh, low tuber number rots seen and irregular shape, alligator skin+,	roundish, small, drop, few tubers	3.3, 3.4, 3.3, 1.5	3.5, 3.3, 3.4, 2.5
A08422-4VRsto	WR19	low tuber number+ and heat sprouts, medium number and rots, chain tubers+, bad number knobs	low tuber number shriveled soft tubers, non uniform russet skin	3, 3, 3, 2.5	3.3, 3.5, 3.4, 3.2

Western and Southwestern Regional Red Trial, Springlake

This trial consisted of four entries, including the check varieties Red LaSoda and Chieftain.

Results were as follows: (Springlake Tables 2a, 2b, 2c, 2d, and 2e)

- A08112-7R and ATTX05175s-1R/Y had the highest general ratings (Table 2a).
- A08112-7R had the highest total yield, while Red LaSoda had the highest marketable yield. A08112-7R had the highest yield of less than 4 oz. tubers (Table 2a).
- Red LaSoda had the highest percentage of marketable yield. ATTX05175s-1R/Y had the highest percent of less than 4 oz. tubers (Table 2b).
- ATX06264s-4R/Y had the highest average number of tubers per plant. A08112-7R, ATTX05175s-1R/Y, and ATX06264s-4R/Y were the latest in maturity, while Chieftain was the earliest in maturity (Table 2c).
- ATTX05175s-1R/Y and COTX04193s-2R/Y had the darkest yellow flesh color. Red LaSoda had the deepest eyes, while ATTX05175s-1R/Y and A08112-7R had the darkest red skin color (Table 2d).

Comments on entries:

- A08112-7R Round Red uniform size, very small++, intense red skin color+, late++, high tuber set++, sprouts, parent for tuber number, uniformly small, true small, many tubers, heat sprouts, rot, greenheads, FC=1.1
- Red LaSoda Round Red some large, rot, deep eyes, attached stolons, a little flat, FC=1.0
- Chieftain Round Red uniform shape and size, low yield, buff skin, attached stolons+, darker pink eyes, FC=1.0
- ATTX05175s-1R/Y Round Red high tuber number+, small++, uniform, not uniform size and shape, late, mini RLS, a little compressed+, FC=4.0

- ATX06264s-4R/Y Round Red late+++ , not uniform shape or size+, intense skin color+, high tuber number, not small, smooth skin, heat sprouts, rot, FC=2.9
- COTX04193s-2R/Y Round Red some green heads, rot, oval shape, some large tubers, medium, uniformly small, very few tubers, heat sprouts, FC=4.0

¹FC=Flesh color intensity, 1=very light to 5=very dark

Summary:

A08112-7R and ATTX05175s-1R/Y were the best entries based on all factors.

Disposition: (Springlake and Dalhart)

ATTX05175s-1R/Y Graduates from WR.

COTX04193s-2R/Y Graduates from WR, Discontinue

ATX06264s-4R/Y Returns to WR for second year evaluations.

Springlake
Table2a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 6 entries in the Western Regional Red Specialty Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Field	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz						10-18 oz
A08112-7R	WR19	166.5	5.9	5.9	0.0	0.0	151.8	8.8	3.6	4.0	
Red LaSoda	WR19	154.5	96.8	45.6	44.4	6.7	53.8	1.9	3.6	3.8	
Chieftain	WR19	132.7	59.4	43.7	15.7	0.0	71.1	2.2	3.7	3.9	
ATTX05175s-1R/Y	WR19	132.2	3.3	3.3	0.0	0.0	126.9	2.1	3.5	4.1	
ATX06264s-4R/Y	WR19	127.1	20.9	18.1	2.8	0.0	96.1	10.1	3.5	3.6	
COTX04193s-2R/Y	WR19	52.2	6.9	6.9	0.0	0.0	43.3	2.1	3.3	3.4	
Average		127.5	32.2	20.6	10.5	1.1	90.5	4.5	3.5	3.8	
L.S.D. (.05)		39.9	12.9	13.3	8.2	3.9	ns	34.6	3.8	ns	0.2

¹ 1=very poor to 5= excellent

Springlake
Table2b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 6 entries in the Western Regional Red Specialty Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
A08112-7R	WR19	3.1	3.1	0.0	0.0	0.0	91.8	5.1	1.058	12.9	Round	Red
Red LaSoda	WR19	62.7	29.4	29.1	4.2	1.2	35.0	1.1	1.058	12.9	Round	Red
Chieftain	WR19	46.1	33.0	13.1	0.0	0.0	52.5	1.4	1.064	13.9	Round	Red
ATX05175s-1R/Y	WR19	2.1	2.1	0.0	0.0	0.0	96.4	1.5	1.064	13.9	Round	Red
ATX06264s-4R/Y	WR19	17.6	15.2	2.4	0.0	0.0	73.4	9.0	1.059	13.0	Round	Red
COTX04193s-2R/Y	WR19	13.4	13.4	0.0	0.0	0.0	82.3	4.3	1.060	13.3	Round	Red
Average		24.2	16.0	7.4	0.7	0.2	71.9	3.7	1.061	13.3		
L.S.D. (.05)		10.5	10.1	6.2	2.5	ns	12.1	3.4	ns	ns		

Springlake
Table2c.

Average number of tubers and stems per plant, tuber weight, percent stand 40 and 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 6 entries in the Western Regional Red Specialty Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Number Stems/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
							Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
A08112-7R	WR19	10.9	1.8	1.3	99	100	2.0	3.7	4.9	3.7	0	1.15	1.12	5.6	4.8	4.3
Red LaSoda	WR19	3.9	2.0	3.9	87	97	1.5	3.8	4.4	3.7	8	1.09	1.16	6.9	6.3	5.5
Chieftain	WR19	4.0	1.9	2.9	93	98	1.5	3.6	3.2	3.5	41	1.13	1.21	6.8	6.0	4.9
ATTX05175s-1R/Y	WR19	11.1	1.7	1.2	84	93	1.5	3.6	4.9	3.7	0	1.07	1.18	5.1	4.8	4.1
ATX06264s-4R/Y	WR19	12.9	1.8	1.7	47	68	1.9	2.8	5.0	3.2	0	1.12	1.20	6.2	5.5	4.6
COTX04193s-2R/Y	WR19	4.7	1.6	1.6	57	61	1.5	2.2	3.8	3.0	23	1.09	1.23	5.8	5.3	4.3
Average		7.9	1.8	2.1	78	86	1.6	3.3	4.4	3.4	12	1.11	1.19	6.1	5.5	4.6
L.S.D. (.05)		1.9	ns	0.3	13	14	0.2	0.5	0.3	0.3	7	ns	ns	0.4	0.3	0.4

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake Table2d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Western Regional Red Specialty Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
A08112-7R	WR19	1.1	1.0	1.0	3.8	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Red LaSoda	WR19	1.0	1.5	1.0	2.5	2.5	5.0	5.0	5.0	5.0	4.5	0	0	5	0
Chieftain	WR19	1.0	1.5	1.0	3.5	2.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
ATTX05175s-1R/Y	WR19	4.0	1.0	1.0	4.0	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX06264s-4R/Y	WR19	2.9	1.6	1.0	4.0	3.6	5.0	5.0	5.0	5.0	5.0	0	0	8	0
COTX04193s-2R/Y	WR19	4.0	1.2	1.0	3.8	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average		2.3	1.3	1.0	3.6	3.2	5.0	5.0	5.0	5.0	4.8	0	0	2	0
L.S.D. (.05)		0.4	0.1			0.1								ns	

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table2e.

Notes and general rating for all reps of 6 entries in the Western Regional Red Specialty Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Notes Field	Notes Grading	General Rating Field	General Rating Grading
A08112-7R	WR19	uniform size, very small++, intense red skin color+, late++, high tuber set+, sprouts,	parent for tuber number, high tuber number, uniformly small, true small, many tubers, heat sprouts, , rot, greenheads	3.6, 3.5, 3.4, 3.8	3.6, 4, 4.2, 4
Red LaSoda	WR19	some large, rot, , ,	deep eyes, attached stolons, a little flat, ,	3.8, 3.6, 3.6, 3.5	3.8, 3.8, 4, 3.6
Chieftain	WR19	uniform shape and size, , , low yield high tuber number, small++, uniform, , not uniform size and shape, late	buff skin, attached stolons+, darker pink eyes, ,	4, 3.8, 3.6, 3.2	4, 4, 3.8, 3.6
ATTX05175s-1R/Y	WR19	late+++, not uniform shape or size+, intense skin color+, , high tuber number.	high tuber number, mini RLS, a little compressed+, ,	3.8, 3.6, 3, 3.4	4.4, 4, 4, 3.8
ATX06264s-4R/Y	WR19	some green heads, rot, oval shape, some large tubers, medium,	not small, not uniform size, smooth skin, , , heat sprouts, rot	3.5, 3.5, 3.5, 3.4	3.5, 3.6, 3.8, 3.4
COTX04193s-2R/Y	WR19	medium,	uniformly small,, very few tubers, taste it, , heat sprouts	3.4, 3.3, 3.5, 3	3.4, 3.5, 3.3, 3.3

Western and Southwestern Regional White/Yellow Trial, Springlake

This trial consisted of twelve entries, including the check variety Yukon Gold.

Results: (Springlake Tables 3a, 3b, 3c, 3d, and 3e)

- Yukon Gold and CO10064-1W/Y had the highest general ratings (Table 3a).
- POR14PG22-3 had the highest total yield, while Yukon Gold had the highest marketable yield (Table 3a).
- POR14PG22-3 and CO10064-1W/Y had the highest yield of less than 4 oz. tubers, POR14PG22-3 and CO10098-5W/Y had the highest yield of culls/No.2 tubers (Table 3a).
- Yukon Gold had the highest percentage of marketable yield, while CO10064-1W/Y, CO11266-1W/Y, CO11250-1W/Y, CO10097-2W/Y, and CO09128-5W/Y had over 90% of less than 4 oz. tubers. CO10098-5W/Y and CO09218-4W/Y had over 23% culls/No.2 (Table 3b).
- CO10064-1W/Y and CO10098-5W/Y had the highest specific gravity (Table 3b).
- POR14PG22-3 had the highest number of tubers per plant (Table 3c).
- CO11250-1W/Y and CO10098-5W/Y were the latest in maturity, while Yukon Gold was the earliest in maturity (Table 3c).
- CO09128-5W/Y and CO10098-5W/Y had the darkest yellow flesh color (Table 3d).

Comments on entries:

- POR14PG22-3 Round White heat sprouts+++ , high tuber set, small, late, compressed shape, high tuber number+, non-uniform size+, heat sprouts+++ , linked tubers++ , black scurf, FC=2.0
- CO10064-1W/Y Round White heat sprouts++ , high tuber set, small, all smalls, angular tubers, FC=3.4
- CO11266-1W/Y Round White late, oval, heat sprouts++ , pink eyes+++ , FC=3.5
- Yukon Gold Round White good size, medium size+, nice, FC=2.8

- CO11250-1W/Y Round White late++, pink splash, red eye splash heat sprouts, linked tubers, pink eyes++, FC=3.1
- CO10097-2W/Y Round White uniform size, very few tubers, all smalls some rotten+, extremely low tuber number++, FC=3.8
- CO09128-5W/Y Round White uniform size, high tuber number, low tuber numbers++, all smalls++, parent for smalls, uniform size and shape, sprouts, FC=4.3
- CO10098-5W/Y Round White small, low tuber number, heat sprouts, yellow flesh, late, heat sprouts++++, very intense flesh color, FC=4.4
- CO09218-4W/Y Round White very few tubers++, late, heat sprouts++++, low tuber number, pointy, FC=3.7

¹FC=Flesh color intensity, 1=very light to 5=very dark

Summary:

None of the entries performed better than Yukon Gold.

Springlake
Table 3a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 9 entries in the Western and Southwestern Regional White/Yellow Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Field	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz						10-18 oz
POR14PG22-3	WR19	116.3	2.8	2.8	0.0	0.0	0.0	99.6	14.0	3.4	3.4
CO10064-1W/Y	WR19	109.9	3.6	3.6	0.0	0.0	0.0	99.4	6.9	3.4	3.7
CO11266-1W/Y	SW19	91.8	4.0	3.1	0.9	0.0	0.0	82.8	5.0	3.4	3.4
Yukon Gold	WR19	90.1	44.4	31.3	8.3	4.8	0.0	45.3	0.3	3.7	3.8
CO11250-1W/Y	SW19	79.0	6.1	6.1	0.0	0.0	0.0	71.7	1.2	3.3	3.4
CO10097-2W/Y	WR19	62.7	2.4	2.4	0.0	0.0	0.0	60.3	0.0	3.3	3.0
CO09128-5W/Y	WR19	61.7	0.0	0.0	0.0	0.0	0.0	60.8	0.9	3.5	3.5
CO10098-5W/Y	WR19	58.8	0.0	0.0	0.0	0.0	0.0	46.0	12.8	3.2	3.2
CO09218-4W/Y	WR19	28.5	0.0	0.0	0.0	0.0	0.0	22.0	6.6	2.7	2.0
Average		77.7	7.0	5.5	1.0	0.5	0.0	65.3	5.3	3.3	3.3
L.S.D. (.05)		23.5	6.9	4.0	2.9	ns		0.8	6.3	0.2	0.4

¹ 1=very poor to 5= excellent

Springlake
Table 3b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 9 entries in the Western and Southwestern Regional White/Yellow Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
POR14PG22-3	WR19	1.9	1.9	0.0	0.0	0.0	86.5	11.5	1.064	13.8	Round	White
CO10064-1W/Y	WR19	3.4	3.4	0.0	0.0	0.0	91.1	5.5	1.079	16.6	Round	White
CO11266-1W/Y	SW19	3.7	2.9	0.8	0.0	0.0	91.6	4.7	1.060	13.2	Round	White
Yukon Gold	WR19	48.9	35.3	9.1	4.5	0.0	50.7	0.4	1.074	15.7	Round	White
CO11250-1W/Y	SW19	6.6	6.6	0.0	0.0	0.0	92.0	1.4	1.062	13.6	Round	White
CO10097-2W/Y	WR19	2.5	2.5	0.0	0.0	0.0	97.5	0.0	1.061	13.4	Round	White
CO09128-5W/Y	WR19	0.0	0.0	0.0	0.0	0.0	97.8	2.2	1.068	14.7	Round	White
CO10098-5W/Y	WR19	0.0	0.0	0.0	0.0	0.0	76.1	23.9	1.080	16.7	Round	White
CO09218-4W/Y	WR19	0.0	0.0	0.0	0.0	0.0	69.9	30.1	1.044	10.4	Round	White
Average		7.4	5.8	1.1	0.5	0.0	83.7	8.9	1.066	14.2		
L.S.D. (.05)		5.8	4.3	3.4	ns		13.6	11.4	0.003	0.5		

Springlake
Table 3c.

Average number of tubers and stems per plant, tuber weight, percent stand 40 and 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 9 entries in the Western and Southwestern Regional White/Yellow Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Number Stems/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
							Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
POR14PG22-3	WR19	9.4	2.6	1.0	100	100	1.5	3.8	4.8	3.8	6	1.09	1.16	5.2	4.8	4.1
CO10064-1W/Y	WR19	5.3	1.5	3.2	71	98	2.0	3.5	4.7	3.3	3	1.08	1.17	5.0	4.6	3.9
CO11266-1W/Y	SW19	6.2	1.8	1.4	33	87	1.9	3.1	4.9	2.9	0	1.16	1.17	5.6	4.9	4.1
Yukon Gold	WR19	3.2	1.8	3.1	58	80	1.6	3.6	3.6	3.3	33	1.09	1.18	6.5	6.0	5.1
CO11250-1W/Y	SW19	6.3	1.5	1.5	37	71	1.8	4.0	5.0	3.2	0	1.18	1.22	5.8	4.9	4.0
CO10097-2W/Y	WR19	4.3	2.2	1.3	44	91	1.8	3.3	4.5	3.2	10	1.11	1.13	5.1	4.6	4.1
CO09128-5W/Y	WR19	5.2	2.8	1.0	100	100	1.5	3.4	4.3	2.9	13	1.07	1.13	4.5	4.2	3.7
CO10098-5W/Y	WR19	7.1	2.0	1.3	45	54	1.5	2.1	5.0	2.6	0	1.15	1.16	5.1	4.5	3.9
CO09218-4W/Y	WR19	7.7	1.7	0.9	29	37	2.0	1.0	4.8	2.0	0	1.15	1.21	5.1	4.4	3.7
Average		6.1	2.0	1.6	57	80	1.7	3.1	4.6	3.0	7	1.12	1.17	5.3	4.8	4.1
L.S.D. (.05)		ns	0.4	ns	20	12	0.2	0.9	0.4	ns	9	0.06	ns	0.4	0.3	0.2

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 3d.

Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 9 entries in the Western and Southwestern Regional White/Yellow Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
POR14PG22-3	WR19	2.0	1.0	1.1	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	5	0
CO10064-1W/Y	WR19	3.4	1.0	1.5	3.9	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO11266-1W/Y	SW19	3.5	1.0	1.5	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Yukon Gold	WR19	2.8	1.1	1.0	3.8	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	15
CO11250-1W/Y	SW19	3.1	1.5	1.0	3.8	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO10097-2W/Y	WR19	3.8	1.0	1.5	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO09128-5W/Y	WR19	4.3	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO10098-5W/Y	WR19	4.4	1.0	1.5	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO09218-4W/Y	WR19	3.7	1.0	1.5	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average		3.4	1.1	1.3	4.1	1.0	5.0	5.0	5.0	5.0	5.0	0.3	0	1	2
L.S.D. (.05)		0.3	0.1	0.1	0.04							ns		ns	5.3

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 3e.

Notes and general rating for all reps of 9 entries in the Western and Southwestern Regional White/Yellow Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Notes Field	Notes Grading	General Rating Field	General Rating Grading
POR14PG22-3	WR19	heat sprouts+++ , high tuber set, , small, late, compressed shape	high tuber number+, non uniform size+, heat sprouts+++, linked tubers++, back scurf	3.4, 3.5, 3.4, 3.3	3.4, 3.4, 3.4, 3.4
CO10064-1W/Y	WR19	heat sprouts+, high tuber set, small	high tuber numbers, all smalls, angular tubers, heat sprouts+,	3.4, 3.5, 3.4, 3.4	3.7, 3.8, 3.6, 3.7
CO11266-1W/Y	SW19	late, pink eyes, oval	heat sprouts++, pink eyes+++	3.4, 3.4, 3.4, 3.3	3.6, 3.5, 3, 3.4
Yukon Gold	WR19	good size, medium	medium size, nice	3.8, 3.7, 3.6, 3.5	4, 4, 3.5, 3.7
CO11250-1W/Y	SW19	late++, pink eyes, pink splash, red eye splash	heat sprouts, linked tubers, pink eyes++	3.3, 3.2, 3.5, 3.3	3.4, 3.5, 3.5, 3.3
CO10097-2W/Y	WR19	uniform size, very few tubers	all smalls some rotten+, extremely low tuber number++ low tuber numbers++, all smalls++, parent for smalls,	3.5, 3.3, 3.3, 3	3.6, 2.8, 3.4, 2
CO09128-5W/Y	WR19	small++, uniform size, high tuber number small, low tuber number, heat sprouts, yellow flesh,	uniform size and shape, sprouts	3.5, 3.5, 3.5, 3.3	3.4, 3.6, 3.6, 3.4
CO10098-5W/Y	WR19	late	heat sprouts+++ , very intense flesh color	3.5, 3, 3.3, 3	3.4, 3.3, 3.4, 2.8
CO09218-4W/Y	WR19	very few tubers++, late, sprouts	heat sprouts+++ , low tuber number, pointy	2.8, 3, 2, 2.8	2, 2.5, 2, 1.5

Texas Advanced Russet Trial, Springlake

This russet trial consisted of ten entries, including the check variety Russet Norkotah.

Results: (Springlake Tables 4a, 4b, 4c, 4d, and 4e)

- COTX10080-2Ru and COTX14132-1Ru had a high general rating and a best of trial designation. TX13590-9Ru, and Russet Norkotah also received high general ratings (Tables 4a and 4e).
- COTX14132-1Ru had the highest total, marketable yield, 6-10 oz., and 10-18 oz. tubers, while TX13590-9Ru had the highest yield of under 4 oz. tubers (Table 4a).
- COTX14132-1Ru had the highest yield of culls/No. 2 tubers (Table 4a).
- COTX10080-2Ru and COTX09022-3RuRE/Y had the highest percentage of marketable yield. COTX14132-1Ru had the highest yield of over 6 oz. tubers (Table 4b).
- Russet Norkotah Dal had the highest percentage of less than 4 oz. tubers. Russet Norkotah278 and Russet Norkotah296 had the highest percentage of culls/No. 2 tubers (Table 4b).
- COTX09022-3RuRE/Y had the highest specific gravity (Table 4b).
- COTX14132-1Ru and TX13590-9Ru were the latest in maturity, while COTX09022-3RuRE/Y and ATTX10008-1Ru were the earliest in maturity (Table 4c).

Comments on entries:

- ATTX10008-1Ru Oblong Russet few tubers, nice russet skin, good shape, not large, non-uniform russetting, missing data for yield and gravity

- COTX14132-1Ru Oblong Russet high tuber number++, large knobs+, nice skin, long, poor shape, chain tubers+, shape issues, heat sprouts, angular tubers+, good russet skin, dark brown+, parent for yield, clean, some large bulky tubers+, heals dark, 10% soft rot (stolon end) drop, BOT
- TX13590-9Ru Oblong Russet high tuber number+, large blocky, nice skin, good shape, heat sprouts, chain tubers
- COTX10080-2Ru Oblong Russet lower tuber number, heat sprouts, rot+, poor skin pattern, knobs+, medium size, chain tubers, good shape, non-uniform shape, nice russet skin, parent for yield, clean, nice shape and size nice skin, heavy russet, BOT
- COTX15271-1Ru Oblong Russet knobs, chain tubers, not uniform, russet skin
- COTX09022-3RuRE/Y Round Russet few tubers, round, small, pink eyes+, nice yellow flesh, knobs
- Russet Norkotah Oblong Russet small, pointy, heat sprouts++, good tuber number, chain tubers+, knobs, nice shape, size+
- Russet Norkotah278 Oblong Russet low tuber number+, good skin, heat sprouts+, knobs+, rot, very few tubers
- Russet Norkotah Dal Oblong Russet low tuber number+, irregular shape, small, heat sprouts, knobs, chain tubers, rot, bad shape
- Russet Norkotah296 Oblong Russet low tuber number+, knobs+, chain tubers++, nice skin, heat sprouts+, nice shape

Summary:

COTX10080-2Ru and COTX14132-1Ru were the best entries based on all factors.

Disposition: (Springlake and Dalhart)

ATTX10008-1Ru	DROP
COTX14132-1Ru	DROP
TX13590-9Ru	Move to SW, in Texas, plant next to TXA549-1Ru
COTX10080-2Ru	Move to CO tissue culture
COTX15271-1Ru	Keep

Springlake
Table 4a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 10 entries in the Texas Advanced Russet Selection Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Field	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz						10-18 oz
ATTX10008-1Ru	TXRU	ND							1.5	1.5	
COTX14132-1Ru	TXRU	225.3	115.5	31.5	44.2	39.8	2.2	43.6	64.1	3.7	3.7
TX13590-9Ru	TXRU	217.0	99.0	60.8	29.4	8.7	0.0	92.9	25.2	3.6	3.8
COTX10080-2Ru	TXRU	140.4	74.9	42.3	19.1	13.6	0.0	53.5	11.9	3.4	3.7
COTX15271-1Ru	TXRU	130.3	54.6	34.2	20.4	0.0	0.0	35.6	40.1	3.6	3.5
COTX09022-3RuRE/Y	TXRU	124.1	63.7	36.1	19.0	8.6	0.0	47.6	12.8	3.4	3.4
Russet Norkotah	WR19	113.6	43.0	25.2	16.7	1.2	0.0	46.3	24.2	3.3	3.7
Russet Norkotah278	TXRU	85.4	27.5	15.4	12.1	0.0	0.0	27.3	30.5	3.1	3.3
Russet Norkotah Dal	TXRU	82.7	21.4	16.3	3.9	1.2	0.0	46.4	14.9	2.9	3.2
Russet Norkotah296	TXRU	75.1	27.1	12.7	10.8	3.6	0.0	23.0	25.0	2.9	3.4
Average		132.7	58.5	30.5	19.5	8.5	0.2	46.3	27.6	3.1	3.3
L.S.D. (.05)		57.8	39.7	17.3	13.7	16.0	ns	19.4	15.1	0.5	ns

¹ 1=very poor to 5= excellent

Springlake
Table 4b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 10 entries in the Texas Advanced Russet Selection Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATTX10008-1Ru	TXRU	ND									Oblong	Russet
COTX14132-1Ru	TXRU	49.5	13.6	19.9	16.0	0.8	19.9	29.8	1.064	14.0	Oblong	Russet
TX13590-9Ru	TXRU	44.7	27.6	12.8	4.3	0.0	43.7	11.6	1.064	13.9	Oblong	Russet
COTX10080-2Ru	TXRU	52.6	28.8	14.7	9.1	0.0	37.1	10.2	1.055	12.4	Oblong	Russet
COTX15271-1Ru	TXRU	41.9	26.3	15.6	0.0	0.0	27.3	30.8	1.062	13.5	Oblong	Russet
COTX09022-3RuRE/Y	TXRU	50.6	28.7	15.1	6.8	0.0	39.0	10.3	1.071	15.2	Round	Russet
Russet Norkotah	WR19	37.5	22.3	14.3	0.9	0.0	40.9	21.7	1.060	13.3	Oblong	Russet
Russet Norkotah278	TXRU	32.5	16.5	15.9	0.0	0.0	34.3	33.2	1.061	13.4	Oblong	Russet
Russet Norkotah Dal	TXRU	26.6	20.9	4.3	1.3	0.0	54.6	18.8	1.063	13.8	Oblong	Russet
Russet Norkotah296	TXRU	35.8	17.4	14.2	4.3	0.0	32.3	31.9	1.059	13.1	Oblong	Russet
Average		41.3	22.5	14.1	4.7	0.1	36.6	22.0	1.062	13.6		
L.S.D. (.05)		10.4	7.2	ns	6.7	ns	10.6	7.4	0.0	0.5		

Springlake
Table 4c.

Average number of tubers and stems per plant, tuber weight, percent stand 40 and 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 10 entries in the Texas Advanced Russet Selection Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Number Stems/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
							Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
ATTX10008-1Ru	TXRU	ND			61	71	1.5	3.0	2.0	3.0	60					
COTX14132-1Ru	TXRU	5.5	1.5	5.6	63	85	1.8	3.4	4.7	3.3	8	1.62	1.13	24.0	14.8	13.1
TX13590-9Ru	TXRU	6.2	2.3	3.5	86	96	1.9	3.9	4.6	3.8	8	1.53	1.14	22.9	15.0	13.2
COTX10080-2Ru	TXRU	3.9	1.8	3.6	82	100	1.7	3.6	3.9	3.5	18	1.67	1.11	23.7	14.2	12.8
COTX15271-1Ru	TXRU	6.6	1.6	3.8	43	57	1.5	3.2	4.0	3.2	15	1.53	1.16	22.9	15.0	13.0
COTX09022-3RuRE/Y	TXRU	3.6	2.3	3.2	61	94	1.7	3.4	1.9	3.6	86	1.29	1.26	19.4	15.0	11.9
Russet Norkotah	WR19	3.2	1.8	3.3	91	98	1.6	3.5	2.8	3.4	61	1.54	1.14	21.1	13.7	12.0
Russet Norkotah278	TXRU	2.7	1.8		92	100	1.7	3.3	3.7	3.2	25					
Russet Norkotah Dal	TXRU	2.7	1.9	2.6	98	100	1.7	3.6	2.5	3.6	68	1.59	1.17	22.5	14.1	12.1
Russet Norkotah296	TXRU	1.8	2.1	3.5	100	100	1.5	3.6	3.8	3.3	24	1.81	1.12	23.5	13.0	11.7
Average		4.0	1.9	3.7	78	90	1.6	3.4	3.4	3.4	37	1.57	1.15	22.5	14.4	12.5
L.S.D. (.05)		1.1	0.4	0.5	14	7	ns	ns	0.4	0.2	7	0.10	ns	1.7	0.7	0.6

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 4d.

Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 10 entries in the Texas Advanced Russet Selection Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
ATTX10008-1Ru	TXRU	1.0	3.5	3.8	4.0	3.0	5.0	5.0	5.0	5.0	3.8				
COTX14132-1Ru	TXRU	1.0	4.5	4.0	4.0	4.0	5.0	5.0	5.0	3.5	4.6	0	0	0	0
TX13590-9Ru	TXRU	1.0	3.6	3.0	4.0	3.0	4.8	5.0	5.0	4.3	3.8	0	0	3	3
COTX10080-2Ru	TXRU	1.0	3.7	4.0	4.3	4.0	5.0	5.0	5.0	4.3	5.0	0	0	0	3
COTX15271-1Ru	TXRU	1.0	3.8	3.5	4.0	3.8	5.0	5.0	5.0	3.0	3.8	0	0	0	0
COTX09022-3RuRE/Y	TXRU	3.0	2.0	3.5	4.0	3.5	5.0	5.0	5.0	4.6	5.0	0	0	0	0
Russet Norkotah	WR19	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	4.4	5.0	0	0	3	3
Russet Norkotah278	TXRU	1.0	3.8	4.0	4.0	4.0	5.0	5.0	5.0	3.8	5.0	0	0	0	0
Russet Norkotah Dal	TXRU	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	3.9	4.8	0	0	0	0
Russet Norkotah296	TXRU	1.0	3.6	4.0	4.0	4.0	5.0	5.0	5.0	4.2	5.0	0	0	0	0
Average		1.2	3.5	3.8	4.0	3.7	5.0	5.0	5.0	4.1	4.6	0	0	1	1
L.S.D. (.05)		0.001	0.2	0.002	ns	0.3	ns			0.5	ns			ns	ns

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark

⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

Variety or Selection	Trial	Notes Field	Notes Grading	General Rating Field	General Rating Grading
ATTX10008-1Ru	TXRU	few tubers, nice russet skin, good shape, not large	non uniform russeting size missing data for yield size and gravity	1.5, , ,	1.5, , ,
COTX14132-1Ru	TXRU	high tuber number+ large knobs+ and nice skin, long, poor shape, chain tubers+ and few rots, shape issues, bad number with heat sprouts	angular tubers+, bad shape, drop high tuber number+ good russet skin dark brown+, parent for yield, clean, some large bulky tubers+, BOT, heals dark 10% soft rot (stolon)	4, 3.5, 4, 3.2	3.3, 3.4, 4.2, 3.8
TX13590-9Ru	TXRU	high tuber number+ large bulky nice skin, good shape, heat sprouts, chain tubers	bulky nice	3.9, 3.6, 3.6, 3.3	3.6, 4, 4, 3.6
COTX10080-2Ru	TXRU	lower tuber number heat sprouts and rots+, poor skin pattern, good number knobs+ medium size chain tubers, good shape , non uniform shape	lots of rotten but nice russet skin, parent for yield, clean, , excellent rep, nice shape and size nice skin, BOT, heavy russet	3, 3.6, 3.8, 3.2	2.8, 3.6, 4.5, 3.8
COTX15271-1Ru	TXRU	knobs and chain tubers	not uniform russet skin	3.6, , ,	3.5, , ,
COTX09022-3RuRE/Y	TXRU	fewer number tubers round in shape smaller and few heat sprouts pink eyes+, nice yellow flesh, knobs	missing data for yield and gravity	3.2, 3.5, 3.3, 3.5	2, 3.8, 3.6, 4
Russet Norkotah	WR19	small pointy heat sprouts++, good tuber number chain tubers+ knobs , , lesser number and bad type	nice shape and size+	3.5, 3.7, 2.8, 3.2	3.6, 3.8, 3.6, 3.6
Russet Norkotah278	TXRU	low tuber number+ good skin, heat sprouts+ and knobs+, rots	very few tubers	, 3.5, 2.6, 3.1	, 3.8, 2.8, 3.2
Russet Norkotah Dal	TXRU	low tuber number+ irregular shape, , smaller shape heat sprouts knobs chain tubers, rots and bad shape		2.5, 3, 3.2, 3	2.8, 3, 3.4, 3.5
Russet Norkotah296	TXRU	low tuber number+ knobs+ and chain tubers++, nice skin, heat sprouts+	nice shape	2.5, 2.6, 3.1, 3.2	, 3.2, 3.4, 3.5

Texas Advanced Red/Specialty Trial, Springlake

This trial consisted of eighteen entries, including the check variety Red LaSoda, Banana, and Sierra Rose.

Results: (Springlake Tables 5a,5b,5c,5d, and5e)

- ATTX10265-4R/Y, ATX08121-3P/Y, and NDTX059759-3RY/Y Pinto had high general ratings and best of trial designations, while Red LaSoda Dal and Red LaSoda also had high general ratings (Table 5a and 5e).
- ATTX10265-4R/Y had the highest total yield, while Red LaSoda had the highest marketable yield and yield of 4-10 oz. tubers, while ATTX10265-4R/Y had the highest yield of less than 4 oz. tubers (Table 5a).
- Red LaSoda had the highest percentage of marketable yield (Table 5b).
- ATX08121-3P/Y had the highest percentage of less than 4 oz. tubers (Table 5b).
- ATTX98444s-16R/Y had the highest specific gravity (Table 5b).
- Banana had the highest average number of tubers per plant (Table 5c).
- ATX11586-2R/Y, Banana, and ATTX10265-4R/Y were the latest in maturity, while ATX08121-5R was the earliest (Table 5c).

Comments on entries:

- | | | |
|--------------------|------------|---|
| • ATX11586-2R/Y | Oval Red | intense skin color+++ , small, low tuber set+, late, oblong, few tubers, smooth, shiny skin, FC=2.6 |
| • Banana | Long White | small, heat sprouts+++ , chain tubers++ , late, susceptible to heat, many culls, FC=2.0 |
| • PORTX03PG25-2R/R | Oblong Red | medium size, intense skin color, some rot, pointed, some protruding eyes, flesh much lighter than other years, not as nice as other years, FC=3.4 |

- ATTX10265-4R/Y Round Red heat sprouts++, high tuber set+, very intense yellow flesh, Bruce likes, light red skin color, nice skin color with orange tint, high tuber number, a little flat, BOT+, FC=4.0
- ATX08121-3P/Y Round Purple very small+++, very uniform size and shape++, yellow flesh, include in maturity trial, road map skin, very few tubers, BOT, FC=2.0
- ATX11549-1P/Y Round Purple low tuber number+, not uniform size, few large tubers, ugly skin, drop, FC=3.0
- ATX11556-1P/Y Round Purple small+, intense dark skin color, shiny skin+, not uniform flesh, yellow flesh, heat sprouts++++, chain tubers, high tuber number, susceptible to heat, rot, drop++, FC=2.5
- NDTX059759-3RY/Y Pinto Round Red-Pinto low tuber set, nice skin pattern++, shiny, few tubers, flat++, moderate tuber set, clean skin, large tubers, few eyes+, very nice tubers, BOT, FC=3.0
- Sierra Rose Round Red small, low tuber set, heat sprouts, road mapping, FC=2.5
- TX14646-1W-R/YPinto Round Red-Pinto low tubers set++, nice skin pattern+, good skin, flat, yellow pink flesh+++, nice, FC=3.0
- ATTX11617-2R Round Red low tuber set+, intense skin color, not uniform size, rot, sprouts, FC=1.0
- ATX08121-5R Round Red high tuber set, medium red skin color, light skin color+, small, dark abundant lenticels, unpleasant skin color, washed color, shiny, darker pink eyes, drop, FC=1.0
- NDTX12248Y-1R Round Red medium red skin color, red eyes, FC=1.0
- NDTX4784-7R Round Red intense red skin color+, good size, nice skin, early, knobs, road map, FC=1.0
- Red LaSoda Dal Round Red not uniform size, very low tuber set, darker skin color than other RLS, very few tubers, FC=1.0
- Red LaSoda Round Red some large, rot, deep eyes, attached stolons, a little flat, FC=1.0
- ATTX98444s-16R/Y Round Red low tuber set, uniform size and shape, small+, attached stolons, FC=2.9

- COTX04050s-1P/P Round Purple look dirty, uniform size, very dark skin, white flesh, small, rot++, angular, mixed flesh, marble flesh, rough skin, heat sprouts++, ugly skin, drop+++, FC=4.0
- COTX10118-4Wpe/Y Round Purple high tuber set, rot, a little flat, purple eyes+++, mixed skin pattern, drop+++, FC=3.0
- COTX10138-15Wpe/Y Round Purple very high tuber number+, uniform, purple eye splash, small, not uniform shape, FC=2.4

¹FC=Flesh color intensity, 1=very light to 5=very dark

Summary:

Fingerling

ATX11586-2R/Y and PORTX03PG25-2R/R performed better than Banana

Red Yellow Flesh

ATX10265-4R/Y, ATX08121-3P/Y, and NDTX059759-3RY/Y Pinto had the highest general ratings.

Red White Flesh

None of the entries performed better than Red LaSoda or Red LaSoda Dal.

Small Potatoes

ATX98444s-16R/Y had acceptable yield and general appearance.

Purple Eye Yellow Flesh

Neither clone performed satisfactorily.

Disposition:

ATX10265-4R/Y	Keep, In TC – do not send to CO
ATX11617-2R	DROP
ATX98444s-16R/Y	Keep
ATX08121-3P/Y	DROP
ATX08121-5R	DROP
ATX11549-1P/Y	Keep

ATX11556-1P/Y	DROP
ATX11586-2R/Y	Keep
COTX04050s-1P/P	DROP
COTX10118-4Wpe/Y	Keep
COTX10138-15Wpe/Y	Keep
NDTX059759-3RY/YPinto	Keep-Harlequin Gold
NDTX12248Y-1R	Keep
NDTX4784-7R	Keep
PORTX03PG25-2R/R	Keep, continue increasing seed in CO
Sierra Rose	Keep
TX14646-1WR/YPinto	Keep, enter into TC

Springlake
Table 5a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 18 entries in the Texas Advanced Red Specialty Selection Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Field	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz						10-18 oz
ATX11586-2R/Y	TXFG	71.6	11.0	11.0	0.0	0.0	55.3	5.2	3.5	3.4	
Banana	TXFG	95.1	0.0	0.0	0.0	0.0	57.5	37.6	3.0	3.0	
PORTX03PG25-2R/R	TXFG	57.9	3.6	3.6	0.0	0.0	51.2	3.1	3.3	3.4	
ATTX10265-4R/Y	TXRD/Y	179.0	22.2	20.7	1.6	0.0	150.0	6.8	3.7	4.1	
ATX08121-3P/Y	TXRD/Y	84.9	0.0	0.0	0.0	0.0	84.9	0.0	3.5	3.9	
ATX11549-1P/Y	TXRD/Y	38.7	15.2	4.8	10.4	0.0	23.5	0.0	2.8	2.5	
ATX11556-1P/Y	TXRD/Y	176.7	22.8	21.8	1.0	0.0	109.2	44.6	3.5	3.5	
NDTX059759-3RY/Y Pinto	TXRD/Y	78.3	31.6	22.1	8.6	0.9	46.3	0.3	3.4	3.8	
Sierra Rose	TXRD/Y	74.7	6.1	6.1	0.0	0.0	63.3	5.4	3.0	3.4	
TX14646-1W-R/YPinto	TXRD/Y	59.3	29.6	13.5	12.8	3.3	28.0	1.7	3.2	3.6	
ATTX11617-2R	TXRed	37.0	0.0	0.0	0.0	0.0	37.0	0.0	2.8	2.2	
ATX08121-5R	TXRed	106.8	14.7	14.0	0.7	0.0	86.1	6.1	3.6	3.5	
NDTX12248Y-1R	TXRed	127.3	38.5	28.6	9.9	0.0	87.8	1.0	3.6	3.6	
NDTX4784-7R	TXRed	92.5	38.9	32.5	6.4	0.0	47.9	5.7	3.6	3.5	
Red LaSoda Dal	TXRed	133.4	76.7	36.4	38.3	2.1	56.7	0.0	3.4	3.8	
Red LaSoda	WR19	154.5	96.8	45.6	44.4	6.7	53.8	1.9	3.6	3.8	
ATTX98444s-16R/Y	TXSM	106.0	1.9	1.9	0.0	0.0	100.8	3.2	3.3	3.6	
COTX04050S-1P/P	TXSM	103.8	6.2	6.2	0.0	0.0	91.2	6.4	3.3	3.0	
COTX10118-4Wpe/Y	Lar	114.9	24.9	19.9	5.0	0.0	89.5	0.5	3.5	3.7	
COTX10138-15Wpe/Y	Lar	111.7	7.8	7.8	0.0	0.0	102.0	1.9	3.5	3.5	
Average		98.7	23.1	14.9	7.4	0.7	0.1	68.4	7.2	3.3	3.4
L.S.D. (.05)		33.3	12.3	10.8	6.1	ns	ns	30.0	10.0	0.3	0.2

¹ 1=very poor to 5= excellent

Springlake
Table 5b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 18 entries in the Texas Advanced Red Specialty Selection Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATX11586-2R/Y	TXFG	12.8	12.8	0.0	0.0	0.0	79.8	7.4	1.054	12.2	Oval	Red
Banana	TXFG	0.0	0.0	0.0	0.0	0.0	60.9	39.1	1.061	13.4	Long	White
PORTX03PG25-2R/R	TXFG	6.1	6.1	0.0	0.0	0.0	88.2	5.8	1.063	13.8	Oblong	Red
ATTX10265-4R/Y	TXRD/Y	12.5	11.7	0.7	0.0	0.0	83.6	4.0	1.052	11.9	Round	Red
ATX08121-3P/Y	TXRD/Y	0.0	0.0	0.0	0.0	0.0	100.0	0.0	1.070	15.1	Round	Purple
ATX11549-1P/Y	TXRD/Y	39.3	12.5	26.8	0.0	0.0	60.7	0.0	ND	ND	Round	Purple
ATX11556-1P/Y	TXRD/Y	13.0	12.4	0.6	0.0	0.0	62.6	24.4	1.053	12.1	Round	Purple
NDTX059759-3RY/Y Pinto	TXRD/Y	40.3	28.0	10.7	1.6	0.0	59.4	0.3	1.056	12.4	Round	Red-Pinto
Sierra Rose	TXRD/Y	8.3	8.3	0.0	0.0	0.0	82.3	9.4	1.070	15.1	Round	Red
TX14646-1W-R/YPinto	TXRD/Y	46.7	21.8	21.1	3.8	0.0	50.8	2.5	1.061	13.3	Round	Red-Pinto
ATTX11617-2R	TXRed	0.0	0.0	0.0	0.0	0.0	100.0	0.0	ND	ND	Round	Red
ATX08121-5R	TXRed	15.0	14.1	0.9	0.0	0.0	79.0	6.0	1.073	15.5	Round	Red
NDTX12248Y-1R	TXRed	30.0	22.5	7.5	0.0	0.0	69.4	0.6	1.065	14.1	Round	Red
NDTX4784-7R	TXRed	43.4	36.3	7.1	0.0	0.0	50.8	5.8	1.062	13.5	Round	Red
Red LaSoda Dal	TXRed	57.5	26.4	29.2	1.9	0.0	42.5	0.0	1.064	13.9	Round	Red
Red LaSoda	WR19	62.7	29.4	29.1	4.2	1.2	35.0	1.1	1.058	12.9	Round	Red
ATTX98444s-16R/Y	TXSM	1.5	1.5	0.0	0.0	0.0	95.5	2.9	1.080	16.8	Round	Red
COTX04050S-1P/P	TXSM	6.1	6.1	0.0	0.0	0.0	87.1	6.8	1.065	14.1	Round	Purple
COTX10118-4Wpe/Y	Lar	23.9	20.0	3.9	0.0	0.0	75.6	0.5	1.058	12.9	Round	White Purple Eye
COTX10138-15Wpe/Y	Lar	8.3	8.3	0.0	0.0	0.0	89.4	2.3	1.071	15.1	Round	White Purple Eye
Average		21.9	13.9	7.4	0.6	0.1	71.5	6.5	1.063	13.8		
L.S.D. (.05)		10.4	8.7	6.4	ns	ns	12.1	6.2	0.003	0.6		

Springlake
Table 5c.

Average number of tubers and stems per plant, tuber weight, percent stand 40 and 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 18 entries in the Texas Advanced Red Specialty Selection Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Number Stems/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
							Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
ATX11586-2R/Y	TXFG	7.5	1.9	1.9	41	56	1.8	2.6	5.0	3.5	0	1.42	1.18	5.3	3.7	3.2
Banana	TXFG	11.9	2.5	0.7	99	100	2.0	4.0	5.0	3.9	0	2.55	1.00	5.7	2.2	2.2
PORTX03PG25-2R/R	TXFG	4.5	1.5	1.4	79	88	1.5	3.3	3.9	3.0	16	1.80	1.06	7.7	4.3	4.0
ATTX10265-4R/Y	TXRD/Y	6.8	1.4	2.2	98	78	1.6	3.6	5.0	3.5	0	1.14	1.31	6.4	5.7	4.3
ATX08121-3P/Y	TXRD/Y	6.0	2.2	1.1	100	100	1.5	3.6	3.0	3.0	50	1.03	1.11	4.7	4.5	4.1
ATX11549-1P/Y	TXRD/Y	1.9	2.3	2.4	71	100	1.5	4.0	3.0	3.9	50	ND	ND	ND	ND	ND
ATX11556-1P/Y	TXRD/Y	7.9	1.8	1.9	100	100	1.5	3.6	3.8	3.6	20	1.06	1.25	6.3	6.0	4.8
NDTX059759-3RY/Y Pinto	TXRD/Y	3.7	1.6	2.7	63	84	1.5	3.6	4.9	3.6	1	1.26	1.31	7.2	5.8	4.4
Sierra Rose	TXRD/Y	3.3	1.9	2.1	83	93	1.5	3.4	3.6	3.7	31	#DIV/0!	#DIV/0!	4.7	4.0	3.5
TX14646-1W-R/YPinto	TXRD/Y	2.4	1.4	3.5	66	82	1.5	3.4	3.6	3.7	28	1.14	1.31	6.7	5.9	4.5
ATTX11617-2R	TXRed	1.8	2.5	2.3	73	95	1.5	3.5	3.8	3.5	15	ND	ND	ND	ND	ND
ATX08121-5R	TXRed	4.0	2.3	2.2	100	100	1.5	3.7	2.0	3.7	85	1.17	1.15	6.1	5.2	4.5
NDTX12248Y-1R	TXRed	4.0	2.2	2.8	93	99	1.5	3.7	3.5	3.7	35	1.15	1.17	6.7	5.8	5.0
NDTX4784-7R	TXRed	3.0	1.6	3.0	87	100	1.6	3.7	3.3	3.7	44	1.07	1.14	6.6	6.1	5.4
Red LaSoda Dal	TXRed	3.0	1.7	3.6	100	100	1.6	3.7	4.0	3.7	15	1.07	1.18	7.1	6.7	5.7
Red LaSoda	WR19	3.9	2.0	3.9	87	97	1.5	3.8	4.8	3.7	8	1.10	1.14	7.0	6.4	5.6
ATTX98444s-16R/Y	TXSM	5.7	2.3	1.5	103	100	1.5	3.9	3.6	3.8	34	1.06	1.13	5.4	5.1	4.5
COTX04050S-1P/P	TXSM	6.4	1.7	1.5	94	100	1.5	3.7	4.9	3.6	0	1.14	1.14	5.5	4.9	4.3
COTX10118-4Wpe/Y	Lar	6.1	1.5	1.9	79	98	1.5	3.7	5.0	3.7	1	1.11	1.21	6.1	5.5	4.5
COTX10138-15Wpe/Y	Lar	5.9	2.2	1.6	99	100	1.5	3.5	3.3	3.5	48	1.04	1.12	5.5	5.2	4.7
Average		4.9	1.9	2.3	85	93	1.6	3.6	3.9	3.6	24	#DIV/0!	#DIV/0!	6.2	5.1	4.4
L.S.D. (.05)		ns	ns	0.3	12	16	0.2	ns	ns	ns	8	0.09	0.04	0.5	0.3	0.3

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 5d.

Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 18 entries in the Texas Advanced Red Specialty Selection Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
ATX11586-2R/Y	TXFG	2.6	2.5	1.0	4.0	4.4	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Banana	TXFG	2.0	5.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
PORTX03PG25-2R/R	TXFG	3.4	4.0	1.0	4.5	4.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX10265-4R/Y	TXRD/Y	4.0	1.5	1.0	4.5	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX08121-3P/Y	TXRD/Y	2.0	1.0	1.0	4.5	4.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX11549-1P/Y	TXRD/Y	3.0	1.5	1.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX11556-1P/Y	TXRD/Y	2.5	1.0	1.0	4.5	4.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059759-3RY/Y Pinto	TXRD/Y	3.0	3.0	1.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Sierra Rose	TXRD/Y	2.5	2.0	1.0	4.0	3.8	5.0	5.0	5.0	5.0	5.0	0	0	3	0
TX14646-1W-R/YPinto	TXRD/Y	3.0	2.8	1.0	4.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX11617-2R	TXRed	1.0	1.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
ATX08121-5R	TXRed	1.0	1.0	1.0	3.6	2.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX12248Y-1R	TXRed	1.0	1.6	1.0	4.5	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4784-7R	TXRed	1.0	1.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Red LaSoda Dal	TXRed	1.0	1.5	1.0	3.5	3.8	5.0	5.0	5.0	5.0	5.0	7	0	10	0
Red LaSoda	WR19	1.0	1.5	1.0	2.5	2.5	5.0	5.0	5.0	5.0	4.5	0	0	5	0
ATTX98444s-16R/Y	TXSM	2.9	1.0	1.0	3.7	3.5	4.5	5.0	5.0	5.0	5.0	0	0	3	0
COTX04050S-1P/P	TXSM	4.0	1.0	2.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX10118-4Wpe/Y	Lar	3.0	1.0	1.0	4.0	2.0	5.0	5.0	5.0	5.0	5.0	0	0	5	0
COTX10138-15Wpe/Y	Lar	2.4	1.0	1.0	4.0	2.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average		2.3	1.9	1.1	4.1	3.8	5.0	5.0	5.0	5.0	4.9	0.4	0	1	0
L.S.D. (.05)		0.1	ns	0.0	0.0	0.1	0.2				0.0	ns		ns	

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Variety or Selection	Trial	Notes Field	Notes Grading	General Rating Field	General Rating Grading
ATX11586-2R/Y	TXFG	intense skin color+++ , small, low tuber set+, late, oblong	few tubers, intense skin color, smooth shiny skin	3.3, 3.8, 3.4, 3.5	3.3, 3.3, 3.3, 3.7
Banana	TXFG	small, heat sprouts+++ , chain tubers+, late	heat sprouts++ , susceptible to heat, linked tubers+ , many culls some protruding eyes, flesh much lighter than other years, rot, not as nice as other years	2.8, 3, 3, 3	3, 3, 3, 3
PORTX03PG25-2R/R	TXFG	medium size, intense skin color, some rot, pointed heat sprouts++ , high tuber set+, very intense yellow flesh,	nice skin color with orange tint, high tuber number, a little flat, BOT+ , , heat sprouts	3.4, 3.4, 3.3, 3.2	3.4, 3.4, 3.3, 3.3
ATX10265-4R/Y	TXRD/Y	some sprouts++ , Bruce likes, light red skin color	small, very uniform size and shape++ , include in maturity trial, BOT, road map skin, very few tubers	3.8, 3.5, 3.6, 3.7	4.4, 4.5, 3.7, 3.7
ATX08121-3P/Y	TXRD/Y	very small+++ , very uniform size and shape++ , yellow flesh low tuber number, not uniform size, few large tubers, ugly	few tubers, drop	3.6, 3.4, 3.6, 3.2	4.2, 4, 4, 3.5
ATX11549-1P/Y	TXRD/Y	skin small+, intense dark skin color, shiny skin+ , not uniform flesh,	heat sprouts+++ , chain tubers, high tuber number, susceptible to heat, drop++ , rot	2.8, , ,	2.5, , ,
ATX11556-1P/Y	TXRD/Y	yellow flesh, heat sprouts++++ , low tuber set, nice skin pattern, shiny, few tubers, flat+ ,	large tubers, nice pattern+ , few eyes+ , flat+ , BOT, , very nice tubers	3.6, 3.6, 3.4, 3.5	3.5, 3.5, 3.5, 3.5
NDTX059759-3RY/Y Pinto	TXRD/Y	moderate tuber set, nice pattern, clean skin		3, 3.5, 3.2, 3.7	3.5, 4.2, 3.5, 4
Sierra Rose	TXRD/Y	small, low tuber set, heat sprouts	road mapping, very few tubers	2.8, 3.6, 3.2, 2.5	3.4, 3.6, 3.5, 3
TX14646-1W-R/YPinto	TXRD/Y	low tubers set++ , nice skin pattern+ , good skin, flat, pink flesh low tuber set, intense skin color, not uniform size, rot, sprouts,	low tuber number, yellow pink flesh+++ , nice	3, 3.4, 3.4, 3	3.4, 3.6, 4, 3.3
ATX11617-2R	TXRed	,	very few tubers small, dark abundant lenticels, unpleasant skin color, drop, washed color, uneven skin color, shiny, darker pink eyes	2.8, , ,	2.2, , ,
ATX08121-5R	TXRed	high tuber set, medium red skin color, light skin color+		3.6, 3.4, 3.6, 3.6	3.3, 3.5, 3.6, 3.6
NDTX12248Y-1R	TXRed	medium red skin color, red eyes		3.6, 3.8, 3.5, 3.6	3.6, 3.6, 3.6, 3.5
NDTX4784-7R	TXRed	intense red skin color, good size, nice skin, early	knobs, road map, intense skin color	3.6, 3.6, 3.2, 3.8	3.5, 3.6, 3.4, 3.6
Red LaSoda Dal	TXRed	not uniform size, very low tuber set	darker skin color than other RLS, very few tubers	3.5, 2.5, 3.8, 3.6	3.7, , 3.8, 3.8
Red LaSoda	WR19	some large, rot	deep eyes, attached stolons, a little flat	3.8, 3.6, 3.6, 3.5	3.8, 3.8, 4, 3.6
ATX98444s-16R/Y	TXSM	small++ , low tuber set, uniform size and shape look dirty, uniform size, very dark skin, sprouting++ , white flesh, small	uniform small+ , attached stolons rot++ , angular, dirty, mixed flesh, marble flesh, drop+++ , rough skin, heat sprouts++ , ugly skin, mixed	2.8, 3.5, 3.3, 3.5	3.6, 3.8, 3.5, 3.6
COTX04050S-1P/P	TXSM			3.4, 3, 3.3, 3.3	3, 3, 3, 3

Texas Advanced White/Yellow Trial, Springlake

This trial consisted of five entries including the check variety Yukon Gold.

Results: (Springlake Tables 6a, 6b, 6c, 6d, and 6e)

- ATX05202s-3W/Y and Yukon Gold had the highest general ratings (Tables 6a).
- ATX05202s-3W/Y had the highest total yield, while Yukon Gold had the highest marketable yield (Table 6a).
- ATX05202s-3W/Y had the highest yield of less than 4 oz. tubers (Table 6a).
- Sierra Gold had the highest percentage of marketable yield. ATX05202s-3W/Y had the highest percentage of less than 4 oz. tubers (Table 6b).
- Sierra Gold and Yukon Gold had the highest specific gravity (Table 6b).
- ATX05202s-3W/Y had the highest average number of tubers per plant (Table 6b).
- ATX05202s-3W/Y and NDTX081451CBs-1Y/Y were the latest in maturity, while Yukon Gold and Sierra Gold were the earliest in maturity (Table 6c).
- ATX05202s-3W/Y and Yukon Gold had the darkest yellow flesh. Yukon Gold had the highest percentage of internal brownspot (Table 6d).

Comments on entries:

- ATX05202s-3W/Y Round White high tuber number++, uniform size, sprouts, small size+++, find a good home, nice, shape+, lemon flesh, FC=2.8
- AORTX11913-3Wre Round White red eyes, heat sprouts+++, high tuber number, pink eyes+, shiny, small, smooth skin, clean as parent, move to WR, fleshy flesh, snow-white flesh, low tuber number, FC=1.0
- Yukon Gold Round White good size, medium size, nice, FC=2.8

- NDTX081451CBs-1Y/Y Round White oval, small, smooth skin+, a little flat, heat sprouts, knobs, low tuber number, drop, FC=2.5
- Sierra Gold Round Russet rot, low tuber number++, nice tubers, FC=2.0

¹FC=Flesh color intensity, 1=very light to 5=very dark

Summary:

ATX05202s-3W/Y and Yukon Gold were the best entries based on all factors.

Disposition:

ATX05202s-3W/Y	Discontinue
AORTX11913-3Wre	Keep, enter into TC
NDTX081451CBs-1Y/Y	DROP
Sierra Gold	Keep

Springlake
Table 6a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 5 entries in the Texas Advanced White/Yellow Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Field	General Rating ¹ Grading
			Total Yield	4-6 oz	6-10 oz					
ATX05202s-3W/Y	TXSM	132.4	9.7	9.0	0.7	0.0	120.3	2.4	3.6	3.8
AORTX11913-3Wre	TXWH/Y	104.4	16.6	11.9	4.7	0.0	84.9	2.9	3.5	3.4
Yukon Gold	WR19	90.1	44.4	31.3	8.3	4.8	45.3	0.3	3.7	3.8
NDTX081451CBs-1Y/Y	TXSM	57.6	2.2	1.6	0.7	0.0	48.7	6.6	3.4	2.9
Sierra Gold	TXWH/Y	55.8	35.8	14.3	12.8	8.6	19.2	0.9	2.9	3.2
Average		88.1	21.7	13.6	5.4	2.7	0.0	63.7	2.6	3.4
L.S.D. (.05)		36.2	12.7	6.4	6.4	ns		29.7	2.5	0.4

¹ 1=very poor to 5= excellent

Springlake
Table 6b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 5 entries in the Texas Advanced White/Yellow Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATX05202s-3W/Y	TXSM	7.3	6.6	0.6	0.0	0.0	91.0	1.7	1.070	15.0	Round	White
AORTX11913-3Wre	TXWH/Y	12.9	9.8	3.1	0.0	0.0	84.8	2.2	1.063	13.8	Round	White
Yukon Gold	WR19	48.9	35.3	9.1	4.5	0.0	50.7	0.4	1.074	15.7	Round	White
NDTX081451CBs-1Y/Y	TXSM	4.3	2.7	1.6	0.0	0.0	83.4	12.3	1.057	12.7	Round	White
Sierra Gold	TXWH/Y	64.5	25.9	22.2	16.5	0.0	34.3	1.1	1.075	15.9	Round	Russet
Average		27.6	16.1	7.3	4.2	0.0	68.9	3.6	1.068	14.6		
L.S.D. (.05)		9.4	7.1	5.9	7.5		10.5	4.8	0.005	0.8		

Springlake
Table 6c.

Average number of tubers and stems per plant, tuber weight, percent stand 40 and 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 5 entries in the Texas Advanced White/Yellow Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Number Stems/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
							Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
ATX05202s-3W/Y	TXSM	7.9	2.1	1.5	98	100	1.8	3.5	4.8	3.6	1	1.13	1.21	5.5	4.9	4.0
AORTX11913-3Wre	TXWH/Y	4.9	2.5	1.7	100	100	1.6	4.0	4.3	4.0	13	1.05	1.14	5.7	5.5	4.8
Yukon Gold	WR19	4.7	1.8	3.1	58	80	1.6	3.6	3.6	3.3	33	1.09	1.18	6.5	6.0	5.1
NDTX081451CBs-1Y/Y	TXSM	3.8	2.0	1.6	79	98	1.7	3.8	4.8	3.5	1	1.17	1.15	5.7	4.9	4.3
Sierra Gold	TXWH/Y	1.8	1.7	3.7	69	95	1.5	3.6	3.7	3.6	23	1.18	1.14	7.5	6.3	5.5
Average		4.6	2.0	2.3	81	95	1.6	3.7	4.2	3.6	14	1.12	1.16	6.2	5.5	4.7
L.S.D. (.05)		2.2	0.3	0.3	15	ns	ns	ns	0.4	ns	8	0.06	ns	0.8	0.6	0.3

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 6d.

Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 5 entries in the Texas Advanced White/Yellow Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
ATX05202s-3W/Y	TXSM	2.8	1.0	1.0	5.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AORTX11913-3Wre	TXWH/Y	1.0	1.0	1.0	5.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Yukon Gold	WR19	2.8	1.1	1.0	3.8	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	15
NDTX081451CBs-1Y/Y	TXSM	2.5	1.0	1.0	5.0	1.0	5.0	5.0	5.0	4.6	5.0	0	0	0	0
Sierra Gold	TXWH/Y	2.0	2.0	1.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average		2.2	1.2	1.0	4.8	1.2	5.0	5.0	5.0	4.9	5.0	0.5	0	0	3
L.S.D. (.05)		0.3	0.1							ns		ns			7

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 6e.

Notes and general rating for all reps of 5 entries in the Texas Advanced White/Yellow Trial grown near Springlake, Texas-2019.

Variety or Selection	Trial	Notes Field	Notes Grading	General Rating Field	General Rating Grading
ATX05202s-3W/Y	TXSM	small+, high tuber number++, uniform size, sprouts red eyes, heat sprouts+++	high tuber number+++ nice, uniform size and shape+, lemon flesh	3.6, 3.7, 3.5, 3.7	3.7, 4, 3.6, 3.7
AORTX11913-3Wre	TXWH/Y	eyes, shiny, small	pink eyes and smooth skin clean as parent, move to WR, fleshy flesh and snow white flesh, low tuber number	3.6, 3.6, 3.6, 3.2	3.5, 3.8, 3.8, 2.5
Yukon Gold	WR19	good size, medium, , ,	medium size, nice	3.8, 3.7, 3.6, 3.5	4, 4, 3.5, 3.7
NDTX081451CBs-1Y/Y	TXSM	oval, small	smooth skin+ and a little flat, heat sprouts and drops, knobs, low tuber number	3.5, 3.3, 3.4, 3.4	3.5, 2.8, 2.8, 2.5
Sierra Gold	TXWH/Y	low tuber number, very few tubers, rot	low tuber number++ and nice tubers	3.2, 2, 3.4, 3	3.5, 3, 3.6, 2.5

2019 Dalhart Trials

Summary of growing conditions:

The trials were planted 10 miles southwest of Dalhart (35°58'15.31"N, 102°44'36.33"W) in a CSS Farms production field on May 13th to 16th and harvested on September 10th to 26th. Standard cultural practices for the area were used (Table 3). Precipitation was significantly higher than normal during the growing season (Figure 4).

Trials conducted:

- National Chip
- Western and Southwestern Regional Chip
- Western and Southwestern Regional Russet
- Western and Southwestern Regional Red/Specialty
- Western and Southwestern Regional White/Yellow
- Texas Advanced Chip Selection
- 2019 4Hill Chip Selection
- Texas Advanced Russet Selection
- 2019 4Hill Russet Selection
- Texas Advanced Red/Specialty Selection
- 2019 4Hill Red Selection
- Texas Advanced Red/Yellow Selection
- 2019 4Hill Red/Yellow Flesh Selection
- Texas Advanced White/Yellow Selection
- 2019 4Hill White/Yellow Flesh Selection
- 2019 4Hill Small Potato Selection
- 2019 4Hill Fingerling Potato Selection

- 2019 4Hill Purple Potato Selection
- Commercial (not reported)
- Breeding Clone Bank
- Microbial

Table 3. Environmental and cultural inputs for the 2019 Dalhart Trials.

Location:

Dalhart, Texas

Soil Type

Dallum Fine Sand Loam

Seed Source

New York, Colorado, Oregon, Texas, and Idaho

Date:

Planted	May 13, 2019	DAP
Vines Killed (Red, Chip)	August 29, 2019	106
Vines Killed (Red, White Yellow Flesh, Russet)	September 4, 2019	111
Harvested (Nat Chip Trial, Chip)	September 9, 2019	116
Harvested (Red and Red/White Yellow Flesh)	September 16, 2019	123
Harvested (Russet)	September 20, 2019	127

Plot Information:

Size of Plots	18' 9.6"
Spacing Between Hills	10.2"
Spacing Between Rows	28"
Hills Per Plot	24
Number of Rows Per Plot	2
Number of Reps	4

Method of Harvest:

Four-row drag digger, with hand pick up

Fertilizer:

Application:

119-122-258 # per acre

Irrigation:

Center Pivot

Seed Treatment

Cruiser Maxx Vibrance

Insecticide:

Movento, Fulfill, Beleaf 50 SG, Sivanto™ prime, Transform WG, Reaper ClearForm

Herbicides Applied:

Matrix SG Herbicide, Reglone, Tricor 4F

Fungicide Applied:

Luna Tranquility, Penncozeb 75DF, Echo Zn, Revus Top, Scala SC

Environmental Factors:

Precipitation was higher than normal during the growing season. 22.97 inches irrigation 12 inches rain

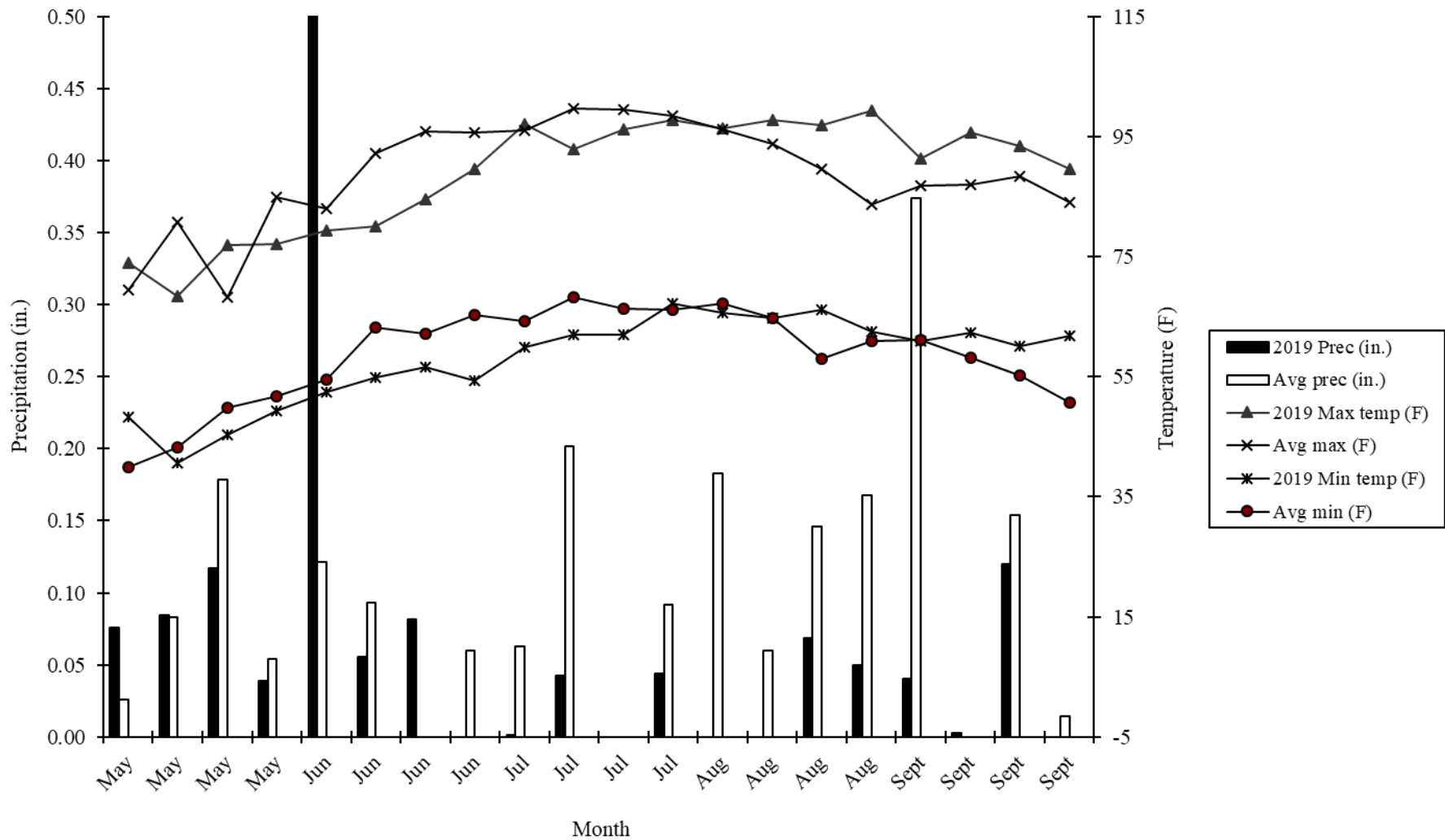


Figure 4. Weekly minimum/maximum temperatures and precipitation for the 2019-growing season near Dalhart, Texas compared to the average minimum/maximum temperatures and precipitation (1949-2019).

Western and Southwestern Regional Chip Trial, Dalhart

This trial consisted of ten entries including the check varieties Atlantic and Snowden.

Results: (Dalhart Tables 1a, 1b, 1c, 1d, 1e, 1f, and 1g)

- TX09403-15W, TX09403-21W, and CO11023-2W had high general ratings and best of trial designations for tuber appearance. ATTX07042-3W, Atlantic, and CO10073-7W had high general ratings for tuber appearance (Table 1a and 1e).
- TX09403-15W had the highest total, and marketable yield, while TX09403-21W had the highest yield of 4-6 oz. tubers. ATTX07042-3W had the highest yield of less than 4 oz. tubers (Table 1a).
- TX09403-15W had the highest yield of over 10 oz. tubers (Table 1a).
- TX09403-15W, TX09403-21W, and Atlantic had the highest percentage of marketable yield (Table 1b).
- CO10073-7W had the highest percentage of less than 4 oz. tubers (Table 1b).
- CO11023-2W had the highest specific gravity (Table 1b).
- ATTX07042-3W and CO10076-4W had the highest average number of tubers per plant (Table 1c).
- TX09403-15W, TX09403-21W, and CO10073-7W were the earliest in maturity, while all other entries were late in maturity (Table 1c).
- Atlantic had the highest percent of internal brown spot (Table 1d).
- All entries had acceptable chip quality ratings and percent of good chip for out of field chipping (Table 1f).
- CO10073-7W and CO11023-9W had the best chipping quality out of storage. After two weeks of reconditioning, CO10073-7W, CO11023-2W, and CO11023-9W had the best chipping quality score and the highest percentage of good chips (Table 1g).

Comments on entries:

- TX09403-15W Round White large tubers++, uniform, high tuber number+, parent, nice shape and skin BOT+++, FC=1.0, CR=1.4
- ATTX07042-3W Round White attached stolons, non-uniform size+, large tubers, high tuber number+, angular tubers, FC=2.0, CR=1.3
- TX09403-21W Round White large tubers, tissue culture, parent, uniform, BOT+++, FC=1.0, CR=1.6

- Atlantic Round Buff attached stolons, buff skin, uniform, large tubers++, FC=1.6, CR=1
- CO11023-2W Round White non-uniform size, nice BOT, FC=1.0, CR=1.3
- CO10076-4W Round White attached stolons, small, FC=1.0, CR=1.6
- CO10073-7W Round White uniform, nice shape, size, and skin, FC=1.0, CR=1.4
- Snowden Round White attached stolons, angular tubers, FC=1.0, CR=1.3
- CO11023-9W Round White FC=1.0, CR=1.1
- CO11037-5W Oval White small, knobs, shape issues, bad shape, drop, FC=1.0, CR=1.8

¹CR=chip quality rating 1=light to 6= dark

²FC=Flesh color intensity, 1=very light to 5=very dark

Summary:

CO11023-2W were the best entries based on all factors. CO11023-2W, CO10073-7W and CO11023-9W appear to have cold sweetening resistance since they chipped out of storage. TX09403-15W and TX09403-21W had high yield and chipped very well out of the field only.

Disposition:

TX09403-15W	Advanced to WR and NCPT
ATTX07042-3W	Reenter in SW and NCPT
TX09403-21W	Reenter in SW and NCPT

Dalhart
Table 1a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 10 entries in the Western and Southwestern Regional Chip Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz					10-18 oz
TX09403-15W	SW19 EGSS	687.5	414.6	227.2	134.0	53.4	0.0	272.9	0.0	4.8
ATTX07042-3W	SW19 EGSS	622.2	247.5	178.1	63.4	6.1	0.0	354.7	19.9	4.1
TX09403-21W	SW19 EGSS	620.9	373.4	240.2	102.5	30.7	0.0	245.1	2.4	4.7
Atlantic	WR19	532.1	323.5	158.8	133.5	31.2	0.0	199.6	9.0	4.2
CO11023-2W	SW19	493.6	218.7	163.2	51.6	3.9	0.0	266.2	8.7	4.1
CO10076-4W	WR19	491.4	140.9	123.7	17.3	0.0	0.0	345.8	4.7	3.7
CO10073-7W	WR19	457.1	103.3	87.2	13.6	2.5	0.0	351.2	2.6	4.2
Snowden	WR19	454.4	198.7	126.2	59.9	12.6	0.0	249.8	5.8	3.7
CO11023-9W	SW19	405.3	136.4	110.8	25.5	0.0	0.0	256.6	12.4	3.8
CO11037-5W	SW19	377.0	88.3	69.3	19.0	0.0	0.0	169.1	119.7	3.5
Average		514.2	224.5	148.5	62.0	14.0	0.0	271.1	18.5	4.1
L.S.D. (.05)		77.7	68.0	50.2	35.4	16.2		49.0	21.2	0.2

¹ 1=very poor to 5= excellent

Dalhart
Table 1b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 10 entries in the Western and Southwestern Regional Chip Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
TX09403-15W	SW19 EGSS	60.5	33.2	19.5	7.8	0.0	39.5	0.0	1.060	13.2	Round	White
ATTX07042-3W	SW19 EGSS	39.3	28.6	9.8	0.9	0.0	57.5	3.1	1.065	14.2	Round	White
TX09403-21W	SW19 EGSS	59.9	38.7	16.4	4.8	0.0	39.7	0.4	1.066	14.3	Round	White
Atlantic	WR19	60.7	30.2	24.7	5.8	0.0	37.6	1.7	1.067	14.5	Round	Buff
CO11023-2W	SW19	44.0	33.0	10.3	0.7	0.0	54.3	1.8	1.072	15.4	Round	White
CO10076-4W	WR19	28.6	25.2	3.4	0.0	0.0	70.5	0.9	1.068	14.7	Round	White
CO10073-7W	WR19	22.3	18.9	2.9	0.5	0.0	77.2	0.6	1.067	14.4	Round	White
Snowden	WR19	43.7	28.0	12.8	2.8	0.0	54.9	1.4	1.066	14.4	Round	White
CO11023-9W	SW19	33.5	27.4	6.1	0.0	0.0	63.4	3.1	1.067	14.5	Round	White
CO11037-5W	SW19	22.8	18.1	4.7	0.0	0.0	45.2	32.0	1.065	14.1	Oval	White
Average		41.5	28.1	11.1	2.3	0.0	54.0	4.5	1.066	14.4		
L.S.D. (.05)		9.5	8.0	6.3	2.8		9.8	4.1	0.007	1.2		

Dalhart
Table 1c.

Average number of tubers per plant, tuber weight, percent stand 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 10 entries in the Western and Southwestern Regional Chip Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
TX09403-15W	SW19 EGSS	12.3	4.3	96	2.1	3.6	3.4	3.7	49	1.07	1.10	6.4	6.0	5.5
ATTX07042-3W	SW19 EGSS	15.2	3.0	100	1.8	4.0	4.3	4.0	8	1.17	1.10	6.9	5.9	5.3
TX09403-21W	SW19 EGSS	12.7	4.1	90	1.9	3.7	3.6	3.8	44	1.08	1.09	6.5	6.0	5.6
Atlantic	WR19	9.1	4.3	100	2.0	4.0	4.3	4.1	10	1.05	1.19	6.6	6.3	5.3
CO11023-2W	SW19	11.5	3.2	98	2.0	3.7	4.8	3.6	3	1.07	1.16	6.7	6.2	5.4
CO10076-4W	WR19	16.1	2.4	94	1.8	3.5	4.9	3.6	3	1.06	1.17	6.2	5.8	5.0
CO10073-7W	WR19	13.7	2.7	93	1.9	3.6	3.6	3.8	36	1.07	1.18	6.5	6.1	5.2
Snowden	WR19	9.8	3.3	100	2.0	4.1	4.7	4.0	5	1.08	1.24	7.0	6.5	5.3
CO11023-9W	SW19	12.0	2.8	89	1.6	2.9	5.0	3.3	0	1.06	1.13	6.6	6.2	5.5
CO11037-5W	SW19	9.4	3.1	100	2.0	3.8	5.0	3.9	0	1.37	1.13	7.8	5.7	5.0
Average		12.2	3.3	96	1.9	3.7	4.3	3.8	16	1.11	1.15	6.7	6.1	5.3
L.S.D. (.05)		2.2	0.5	8	0.3	0.3	0.4	0.2	10	0.07	0.06	0.4	0.3	0.3

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart Table 1d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 10 entries in the Western and Southwestern Regional Chip Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
TX09403-15W	SW19 EGSS	1.0	1.0	1.9	4.0	1.0	4.9	5.0	4.8	5.0	4.4	8	0	3	3
ATTX07042-3W	SW19 EGSS	2.0	1.1	1.0	4.0	1.0	5.0	5.0	5.0	4.9	4.8	0	0	0	0
TX09403-21W	SW19 EGSS	1.0	1.1	1.1	4.0	1.0	4.8	5.0	4.9	5.0	4.4	0	0	3	10
Atlantic	WR19	1.0	1.6	3.0	3.8	1.0	5.0	5.0	5.0	4.5	4.5	3	0	5	53
CO11023-2W	SW19	1.0	1.0	1.9	3.7	1.0	4.9	5.0	5.0	4.9	4.6	0	0	8	18
CO10076-4W	WR19	1.0	1.0	1.0	3.8	1.0	5.0	5.0	5.0	4.4	4.1	0	0	0	10
CO10073-7W	WR19	1.0	1.1	1.4	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	3
Snowden	WR19	1.0	1.3	2.8	3.5	1.0	4.3	5.0	5.0	5.0	4.8	3	5	13	3
CO11023-9W	SW19	1.0	1.1	1.0	3.9	1.0	5.0	5.0	5.0	4.8	4.0	0	0	0	13
CO11037-5W	SW19	1.0	2.6	1.8	4.1	1.0	5.0	5.0	5.0	3.0	3.5	0	0	0	3
Average		1.1	1.3	1.7	3.9	1.0	4.9	5.0	5.0	4.6	4.4	1.3	1	3	11
L.S.D. (.05)		0.1	0.2	0.2	0.0		ns			0.4	0.3	ns	ns	6.5	11.9

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 1e.

Notes and general rating for all reps of 10 entries in the Western and Southwestern Regional Chip Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Notes Grading	General Rating Grading
TX09403-15W	SW19 EGSS	BOT, large tubers, uniform , BOT, high tuber number, large tubers , BOT, tissue culture, parent , BOT, large tubers, high tuber number, nice shape, nice skin	Bot 4.8, 4.6, 5, 4.6
ATTX07042-3W	SW19 EGSS	attached stolons, non uniform size , , large tubers, high tuber number , angular tubers, non uniform size, high tuber number	3.8, 4.3, 4.4, 4
TX09403-21W	SW19 EGSS	BOT, large tubers, tissue culture, parent, , BOT, uniform , BOT , BOT	Bot 4.8, 4.5, 4.8, 4.8
Atlantic	WR19	attached stolons, buff skin, uniform , large tubers , , large tubers	4.5, 3.8, 4.3, 4.3
CO11023-2W	SW19	non uniform size , BOT, nice , ,	Bot 3.8, 4.6, 3.8, 4
CO10076-4W	WR19	attached stolons , small , ,	3.8, 3.6, 3.7, 3.8
CO10073-7W	WR19	uniform, nice shape, nice size , , nice skin ,	4.6, 4, 4, 4.2
Snowden	WR19	attached stolons , , angular tubers ,	3.7, 3.6, 3.8, 3.8
CO11023-9W	SW19	, , ,	4, 3.7, 3.8, 3.7
CO11037-5W	SW19	small, knobs, shape issues , , drop, bad shape ,	3.5, 3.5, 3.4, 3.4

Dalhart Specific gravity, percent solids, chip color rating, good chip, bad chip, percentage vascular discoloration, bruise, stem end discoloration, apical bruise notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 10 entries in the Western and Southwestern Regional Chip Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Gravity	% Solids	Chip Rating ¹	Chip Color ²	% Good Chip	% Bad Chip	% Vas	% Bruise	% Stem	% Apical Bruise	Notes ³	% Zebra Chip Grading	% Zebra Chip Chipping	6 Weeks Storage Chip Rating	Reconditioning Chip Rating
TX09403-15W	SW19 EGSS	1.060	13.2	1.4	1.1	73	28	8	5	15	0	2 se1 ,3 vas, 4 se1 ,1 bruise , , 1 bruise	3	0	0	0
ATTX07042-3W	SW19 EGSS	1.065	14.2	1.3	2.7	84	16	3	3	13	0	2 se1 ,1 bruise , 2 se2 ,1 vas , , nice	0	0	0	0
TX09403-21W	SW19 EGSS	1.066	14.3	1.6	1.0	83	17	4	0	6	0	3 ihh , 2 vas , nice , 2 se1 , nice	0	0	0	0
Atlantic	WR19	1.067	14.5	1.6	1.0	65	35	0	18	5	0	3 bruise , 2 se2 ,2 scab ,1 bruise , 2 bruise ,2 ihh , 1 bruise ,1 ihh	0	0	0	0
CO11023-2W	SW19	1.072	15.4	1.3	1.0	86	14	0	0	0	0	, nice , 3 ihh , 2 gh ,1 ihh	0	0	0	0
CO10076-4W	WR19	1.068	14.7	1.6	1.1	83	18	8	3	3	0	, 1 bruise , , 3 vas ,1 ihh ,1 se2	0	0	0	0
CO10073-7W	WR19	1.067	14.4	1.2	1.0	88	13	3	3	8	0	, 1 vas , 1 bruise , 3 se1	0	0	0	0
Snowden	WR19	1.066	14.4	1.4	1.0	84	16	8	0	3	0	, 1 ihh ,1 se2 ,1 gh ,1 vas , nice , 2 vas	0	0	0	0
CO11023-9W	SW19	1.067	14.5	1.3	1.1	82	18	0	12	3	0	, 1 bruise , 4 bruise , 1 ihh ,1 se1	0	0	0	0
CO11037-5W	SW19	1.065	14.1	1.8	1.1	65	35	8	10	2	0	4 ihh , 3 vas ,2 sugar , 4 bruise , 1 se2	0	0	0	0
Average		1.066	14.4	1.4	1.2	79	21	4	5	6	0		0	0	0	0
L.S.D. (.05)		0.007	1.2	0.6	0.2	20	20	ns	13	ns	ns		ns	ns	0	0

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹ 1=Light to 5=Dakest Chip quality (level of browning including defects) Color using Snack Food Association Color Standards for Potato Chips 2008

² 1=light, 3+=very dark

³ BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Dalhart
Table 1g.

Chip color rating, chip colorp and notes for chipping out of storage of 10 entries in the Western and Southwestern Regional Chip Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Chipping 6 Weeks of Storage			Chipping Recondition for 2 Weeks		
		Chip Rating ¹	Chip Color ²	Notes ³	Chip Rating1	Chip Color2	Notes3
TX09403-15W	SW19 EGSS	3.9	1.6	, , ,	4.0	2.0	Drop, Drop, Drop, Drop
ATTX07042-3W	SW19 EGSS	4.3	3.0	, , ,	3.4	3.0	, , ,
TX09403-21W	SW19 EGSS	4.2	2.2	, , ,	4.1	1.8	Drop, Drop, Drop, Drop
Atlantic	WR19	4.0	2.5	, , ,	3.7	1.5	, , ,
CO11023-2W	SW19	2.1	1.4	, BOT, NICE,	1.6	1.1	, Nice, ,
CO10076-4W	WR19	3.8	1.5	, BC, BC, BC	2.1	1.0	, , ,
CO10073-7W	WR19	3.0	1.0	, , , BC	3.0	1.1	, , ,
Snowden	WR19	2.9	1.8	, , ,	1.4	1.0	, , ,
CO11023-9W	SW19	1.3	1.0	BOT, BRUISE, , BOT	1.3	1.0	BOT, , BOT, BOT
Average		3.3	1.8		2.7	1.5	
L.S.D. (.05)		0.6	0.9		0.6	ns	

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar enew, PB=

pressure bruise, GH=greenheaw, Z=zebra

Western Regional and Texas Advanced Russet Trial, Dalhart

This trial consisted of twenty-four entries, including the check varieties Ranger Russet, Russet Burbank, Shepody, and Russet Norkotah.

Results: (Dalhart Tables 2a, 2b, 2c, 2d, and 2e)

- Reveille Russet and COTX08322-10Ru received high general ratings and best of trial designations, while Russet Norkotah also received a high general rating (Tables 2a and 2e).
- Russet Norkotah had the highest total yield, while A10021-5TE had the highest marketable yield. Reveille Russet had the highest yield of over 10 oz. tubers (Table 2a).
- A07061-6 had the highest yield of less than 4 oz. tubers, while Russet Burbank had the highest yield of culls/No.2 tubers (Table 2a).
- COTX08322-10Ru and A10021-5TE had the highest percentage of marketable yield (Table 2b).
- CO10091-1RU had the highest percentage of less than 4 oz. tubers. Reveille Russet had the highest percentage of over 10 oz. tubers, while Russet Burbank had the highest percentage of culls/No. 2 tubers (Table 2b).
- A071012-4BF and COTX08063-2Ru had the highest specific gravity (Table 2b).
- All entries were the late in maturity, except for Russet Norkotah, Reveille Russet, COTX05095-2Ru/Y, and CO10087-4RU which were early in maturity (Table 2c).
- A071012-4BF and CO09205-2RU had over 20% hollow heart, while AO02183-2 had 63% vascular discoloration. COTX08322-10Ru had 25% internal brown spot (Table 2d).

Comments on entries:

- Russet Norkotah Long Russet good skin and shape+, some misshapen+, many eyes, impressive high tuber number
- A10021-5TE Long Russet very very long+, many eyes, high tuber number+, pointed++, foot long, large, light skin
- A08433-4VR Oblong Russet non-uniform shape, oval to very long, it heals dark, pointed+, some very large, large number of smalls, very high tuber number, knobs, a little flat
- A08422-4VRsto Oblong Russet several rotten, very long, curved, pointed, light skin+, high tuber number+, large, ZC 10%, bad shape, angular

- Reveille Russet Oblong Russet impressive high tuber number, excellent shape, very nice shape+, BOT+
- AOR07781-5 Long Russet very large+, very long+, many eyes+, light eyes+, pointed+, knobs+, high tuber number, deep eyes, similar to Russet Norkotah, yellow flesh, parent
- COTX08322-10Ru Oblong Russet nice, bulky+, advance, prepare PVP, very high tuber number, snow white, nice shape, ZC 10%, BOT+++
- A071012-4BF Oblong Russet non-uniform shape, oval to very long, heals dark, knobs, pointed, light skin
- A07061-6 Oblong White non-uniform shape+, round+, oval+, oblong, nonuniform skin, buff skin, light skin++, high tuber number, misshapen
- A07769-4 Oblong Russet non-uniform skin, nice shape, blocky+, nice skin
- COTX05095-2Ru/Y Long Russet non-uniform shape and size, knobs, parent for flesh color, very nice shape, blocky, light skin, small-medium, yellow flesh+, golden skin, DROP
- POR12NCK50-1 Long Russet medium, good shape, high tuber number, skinny
- Shepody Oblong White heat sprouts, knobs+++, light skin++, high tuber number++, ugly, bad shape, nonuniform shape, deformed tubers, misshapen
- OR12133-10 Long White nice, very light skin+++, skinny+, misshapen, ZC 20%
- Ranger Russet Long Russet deep eyes, rugged+, high tuber number, pointed
- Russet Burbank Long Russet dislike shape, many knobs+, terrible shape, misshapen
- CO10091-1RU Oblong Russet
- CO10087-4RU Long Russet nice skin, good shape+, very few tubers, golden russet skin
- AO02183-2 Long Russet skinny+, many eyes, light eyes, very long, knobs+, pointed
- CO09205-2RU Long Russet few tubers, nice skin, small
- COTX08063-2Ru Long Russet skinny+, pointed+, some long, small, very light skin+, small-medium, DROP+
- CO09076-3RU Long Russet few tuber number, misshapen, knobs, skinny+, pointed, heat sprouts
- CO11009-3RU Long Russet dark skin, misshapen+, pointed+
- CO10085-1RU Oval Russet many smalls+, oval, heat sprouts, chained tubers, knobs, bad shape

Summary:

Reveille Russet and COTX08322-10Ru were the best entries based on all factors.

Dalhart
Table 2a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 24 entries in the Western and Southwestern Regional Russet Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz					10-18 oz
Russet Norkotah	WR19	636.6	366.6	111.6	160.5	94.5	0.0	180.4	89.6	4.2
A10021-5TE	WR19	620.0	381.3	84.9	214.4	82.0	28.0	74.2	136.5	3.8
A08433-4VR	WR19	596.2	243.5	122.9	84.6	36.0	38.9	215.5	98.3	3.7
A08422-4VRsto	WR19	588.9	309.9	100.1	177.0	32.8	5.8	170.6	102.6	3.6
Reveille Russet	ADVTXRU	580.4	325.1	107.4	113.9	103.8	43.2	166.1	46.0	4.5
AOR07781-5	WR19	552.4	240.0	77.9	95.5	66.6	22.9	126.5	163.0	3.7
COTX08322-10Ru	SW19	552.4	349.3	113.4	159.3	76.6	0.0	179.3	23.8	4.4
A071012-4BF	WR19	549.0	250.4	97.9	97.9	54.6	13.6	184.2	100.8	3.6
A07061-6	WR19	541.0	189.0	124.1	46.7	18.2	0.0	313.8	38.2	3.6
A07769-4	WR19	529.3	283.7	111.1	138.8	33.9	0.0	175.0	70.6	3.8
COTX05095-2Ru/Y	WR19	521.0	196.3	120.7	67.3	8.4	0.0	278.7	46.1	3.7
POR12NCK50-1	WR19	518.0	237.6	128.5	92.0	17.2	0.0	237.0	43.4	3.8
Shepody	WR19	510.3	133.8	97.3	28.8	7.7	3.0	167.7	205.8	3.6
OR12133-10	WR19	501.5	202.6	109.2	73.7	19.7	2.7	225.3	70.8	3.8
Ranger Russet	WR19	473.6	222.5	106.7	67.8	47.9	0.0	169.4	81.7	3.6
Russet Burbank	WR19	446.9	102.4	56.2	46.2	0.0	0.0	100.1	244.5	3.1
CO10091-1RU	WR19	423.7	109.6	68.2	39.5	1.9	0.0	299.5	14.6	3.5
CO10087-4RU	WR19	415.0	223.6	101.1	88.0	34.5	12.6	130.5	48.3	3.8
AO02183-2	WR19	404.3	183.9	86.3	78.0	19.7	0.0	156.4	63.9	3.6
CO09205-2RU	WR19	401.4	141.5	86.0	36.4	19.1	2.5	200.2	57.2	3.4
COTX08063-2Ru	ADVTXRU	352.4	116.9	76.9	26.8	13.3	7.8	189.9	37.9	3.5
CO09076-3RU	WR19	336.3	126.3	76.2	40.4	9.7	20.1	119.2	70.7	3.1
CO11009-3RU	SW19	318.0	154.8	76.9	63.8	14.1	0.0	107.9	55.4	3.6
CO10085-1RU	SW19	287.9	42.6	30.8	11.8	0.0	0.0	185.0	60.4	2.6
Average		485.7	213.9	94.7	85.4	33.8	8.4	181.3	82.1	3.6
L.S.D. (.05)		122.4	82.6	36.8	58.3	34.3	ns	58.3	50.6	0.3

¹ 1=very poor to 5= excellent

Dalhart
Table 2b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 24 entries in the Western and Southwestern Regional Russet Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Russet Norkotah	WR19	55.9	18.8	23.2	13.9	0.0	30.0 ##	14.1	1.058	12.9	Long	Russet
A10021-5TE	WR19	60.1	12.8	33.6	13.7	4.6	12.3	23.0	1.071	15.1	Long	Russet
A08433-4VR	WR19	39.6	20.3	13.3	6.0	6.1	36.9	17.4	1.067	14.5	Oblong	Russet
A08422-4VRsto	WR19	52.9	17.2	30.3	5.3	0.9	28.3	17.9	1.064	14.0	Oblong	Russet
Reveille Russet	ADVTRU	57.0	19.2	22.0	15.8	5.9	29.4	7.7	1.068	14.6	Oblong	Russet
AOR07781-5	WR19	43.7	14.2	17.3	12.2	4.1	22.6	29.6	1.075	15.9	Long	Russet
COTX08322-10Ru	SW19	63.2	20.6	28.7	13.9	0.0	32.6	4.2	1.061	13.4	Oblong	Russet
A071012-4BF	WR19	46.0	17.7	18.2	10.1	2.4	33.7	17.9	1.082	17.2	Oblong	Russet
A07061-6	WR19	34.6	23.2	8.2	3.2	0.0	57.8	7.6	1.070	14.9	Oblong	White
A07769-4	WR19	53.2	20.8	25.8	6.6	0.0	33.2	13.5	1.071	15.2	Oblong	Russet
COTX05095-2Ru/Y	WR19	37.6	23.1	12.9	1.6	0.0	53.5	8.9	1.066	14.2	Long	Russet
POR12NCK50-1	WR19	46.2	25.2	17.8	3.1	0.0	45.7	8.1	1.075	15.8	Long	Russet
Shepody	WR19	26.4	19.1	5.5	1.8	0.7	33.7	39.2	1.074	15.7	Oblong	White
OR12133-10	WR19	40.0	22.4	14.2	3.4	0.4	45.6	14.0	1.068	14.7	Long	White
Ranger Russet	WR19	47.4	22.9	15.1	9.5	0.0	36.0	16.5	1.073	15.6	Long	Russet
Russet Burbank	WR19	22.6	13.2	9.5	0.0	0.0	23.0	54.4	1.059	13.1	Long	Russet
CO10091-1RU	WR19	25.6	15.8	9.2	0.5	0.0	71.1	3.3	1.072	15.4	Oblong	Russet
CO10087-4RU	WR19	54.9	27.6	20.3	7.0	3.2	28.7	13.2	1.075	15.9	Long	Russet
AO02183-2	WR19	44.2	21.1	17.9	5.2	0.0	38.9	16.9	1.070	15.1	Long	Russet
CO09205-2RU	WR19	40.3	23.1	10.3	6.8	1.2	45.3	13.2	1.067	14.5	Long	Russet
COTX08063-2Ru	ADVTRU	32.7	21.3	7.5	3.9	2.5	54.4	10.5	1.083	17.3	Long	Russet
CO09076-3RU	WR19	38.3	22.8	12.8	2.7	5.7	36.9	19.1	1.062	13.5	Long	Russet
CO11009-3RU	SW19	50.5	26.6	18.6	5.3	0.0	32.8	16.7	1.077	16.3	Long	Russet
CO10085-1RU	SW19	15.6	11.7	4.0	0.0	0.0	63.1	21.3	1.076	16.1	Oval	Russet
Average		42.9	20.0	16.5	6.3	1.6	38.6	17.0	1.070	15.0		
L.S.D. (.05)		11.1	ns	8.8	5.4	ns	9.8	9.5	0.005	0.8		

Dalhart
Table 2c.

Average number of tubers per plant, tuber weight, percent stand 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 24 entries in the Western and Southwestern Regional Russet Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
Russet Norkotah	WR19	8.4	5.6	100	1.8	3.8	3.4	3.8	50	0.00	1.07	11.0	5.3	5.0
A10021-5TE	WR19	6.7	6.8	100	2.1	3.7	4.9	3.8	3	2.18	1.10	11.5	5.3	4.8
A08433-4VR	WR19	9.0	5.1	96	1.6	3.7	5.0	3.7	0	1.73	1.21	10.4	6.0	4.9
A08422-4VRsto	WR19	8.1	5.3	100	2.0	3.8	4.4	3.8	13	1.97	1.15	10.8	5.6	4.9
Reveille Russet	ADVTXRU	10.7	5.5	72	1.6	3.4	3.6	3.6	25	1.76	1.12	10.4	5.9	5.3
AOR07781-5	WR19	7.0	5.9	98	2.0	3.9	5.0	4.0	0	1.97	1.13	11.3	5.7	5.1
COTX08322-10Ru	SW19	7.3	5.5	100	2.0	3.7	4.9	3.8	8	1.73	1.16	10.5	6.1	5.2
A071012-4BF	WR19	7.0	5.7	100	2.0	3.9	5.0	3.9	0	1.70	1.14	10.6	6.2	5.5
A07061-6	WR19	12.0	3.3	100	1.9	3.8	5.0	3.8	0	1.52	1.13	9.2	6.0	5.3
A07769-4	WR19	7.6	5.3	96	1.6	3.6	4.8	3.6	1	1.72	1.12	10.3	6.0	5.3
COTX05095-2Ru/Y	WR19	9.9	3.8	100	1.9	4.0	3.7	4.0	24	1.90	1.05	10.3	5.4	5.1
POR12NCK50-1	WR19	8.7	4.4	100	1.9	3.7	5.0	3.8	0	2.15	1.08	11.3	5.3	4.9
Shepody	WR19	8.2	4.6	98	2.0	3.9	4.4	3.9	15	1.71	1.18	10.0	5.9	5.0
OR12133-10	WR19	8.9	4.1	100	1.6	3.9	5.0	3.9	0	2.11	1.11	10.9	5.2	4.7
Ranger Russet	WR19	7.4	4.6	100	2.1	3.8	4.9	3.8	0	2.18	1.12	11.3	5.2	4.7
Russet Burbank	WR19	7.0	4.6	100	2.0	3.9	4.5	3.9	8	2.59	1.11	12.2	4.7	4.2
CO10091-1RU	WR19	10.7	3.2	92	1.6	3.3	4.7	3.5	6	1.56	1.19	9.2	5.9	5.0
CO10087-4RU	WR19	6.2	5.4	88	1.8	3.4	3.5	3.7	35	2.01	1.15	11.1	5.5	4.8
AO02183-2	WR19	7.5	3.9	100	1.8	3.7	5.0	3.7	0	2.37	1.04	11.7	4.9	4.8
CO09205-2RU	WR19	8.6	4.3	82	1.9	3.2	4.8	3.4	3	1.96	1.09	10.7	5.5	5.1
COTX08063-2Ru	ADVTXRU	7.5	3.5	100	2.0	3.9	4.9	3.9	0	2.27	1.12	11.4	5.0	4.5
CO09076-3RU	WR19	7.6	4.2	83	1.9	3.1	4.8	3.5	5	2.19	1.12	11.5	5.3	4.7
CO11009-3RU	SW19	9.0	3.7	86	1.6	3.0	4.8	3.4	0	2.23	1.04	11.1	5.0	4.8
CO10085-1RU	SW19	12.8	2.1	77	1.8	2.6	5.0	3.1	1	1.65	1.12	9.2	5.6	5.0
Average		8.5	4.6	94	1.8	3.6	4.6	3.7	8	1.88	1.12	10.7	5.5	4.9
L.S.D. (.05)		2.1	0.9	11	0.3	0.4	0.2	0.2	4	0.34	0.14	1.6	0.8	ns

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

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Table 2d.

Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 24 entries in the Western and Southwestern Regional Russet Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
Russet Norkotah	WR19	1.0	5.0	4.5	3.8	4.4	5.0	5.0	5.0	4.0	5.0	15	0	5	0
A10021-5TE	WR19	1.0	5.0	3.5	3.9	3.8	5.0	5.0	5.0	3.6	5.0	0	0	15	0
A08433-4VR	WR19	1.0	4.8	4.1	4.0	3.8	5.0	5.0	5.0	3.4	4.6	3	0	5	0
A08422-4VRsto	WR19	1.0	5.0	2.6	4.1	2.5	4.6	5.0	5.0	4.1	5.0	0	0	0	0
Reveille Russet	ADVTXRU	1.0	4.9	4.0	4.5	4.0	5.0	5.0	5.0	4.5	5.0	0	0	0	3
AOR07781-5	WR19	3.0	5.0	4.4	3.8	4.3	5.0	5.0	5.0	2.8	5.0	0	0	3	0
COTX08322-10Ru	SW19	1.0	5.0	3.9	4.1	3.9	5.0	5.0	5.0	4.8	5.0	0	3	3	25
A071012-4BF	WR19	1.0	4.1	2.8	4.0	3.6	5.0	5.0	5.0	3.6	5.0	20	0	0	3
A07061-6	WR19	1.0	3.4	1.5	4.5	1.0	5.0	5.0	4.9	4.3	5.0	0	0	8	0
A07769-4	WR19	1.0	3.8	3.0	4.5	3.4	4.8	5.0	5.0	4.0	4.9	0	0	20	10
COTX05095-2Ru/Y	WR19	3.6	4.2	3.1	4.0	3.2	5.0	5.0	5.0	4.5	5.0	0	3	5	0
POR12NCK50-1	WR19	1.0	5.0	4.0	4.0	4.0	5.0	5.0	5.0	4.3	5.0	0	0	0	0
Shepody	WR19	1.0	4.1	1.0	4.5	1.0	5.0	5.0	4.6	2.5	5.0	0	0	18	0
OR12133-10	WR19	1.1	4.9	1.2	4.5	1.5	5.0	5.0	4.9	4.0	5.0	0	3	15	0
Ranger Russet	WR19	1.0	5.0	3.6	3.8	3.5	5.0	5.0	5.0	3.0	4.9	0	0	15	0
Russet Burbank	WR19	1.0	5.0	4.0	3.8	3.8	5.0	5.0	5.0	1.4	5.0	0	0	0	3
CO10091-1RU	WR19	1.0	3.5	4.0	4.3	3.9	5.0	5.0	5.0	4.8	5.0	0	0	5	0
CO10087-4RU	WR19	1.0	5.0	3.9	4.0	3.8	4.9	4.8	5.0	4.0	5.0	3	0	0	3
AO02183-2	WR19	1.0	5.0	4.2	3.8	4.0	5.0	5.0	5.0	3.4	5.0	0	0	63	0
CO09205-2RU	WR19	1.0	4.5	3.9	4.1	4.1	5.0	5.0	5.0	4.2	5.0	23	0	3	8
COTX08063-2Ru	ADVTXRU	1.0	4.6	2.3	4.0	3.0	5.0	5.0	5.0	4.5	5.0	0	0	25	0
CO09076-3RU	WR19	1.0	4.7	4.0	4.3	4.0	5.0	5.0	5.0	3.5	5.0	3	0	20	0
CO11009-3RU	SW19	1.0	5.0	4.3	3.9	4.0	4.8	4.8	4.8	4.0	5.0	3	0	0	0
CO10085-1RU	SW19	1.0	2.0	3.8	4.0	3.8	5.0	5.0	5.0	3.5	5.0	0	0	5	0
Average		1.2	4.5	3.4	4.1	3.4	5.0	5.0	5.0	3.8	5.0	2.8	0	10	2
L.S.D. (.05)		0.1	0.3	0.4	0.2	0.3	ns	ns	ns	0.6	0.1	10.2	ns	16.9	6.1

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark

⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

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Table 2e. Notes and general rating for all reps of 24 entries in the Western and Southwestern Regional Russet Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Notes Grading	General Rating Grading
Russet Norkotah	WR19	good skin and shape+, some misshapen+, many eyes, impressive high tuber number	3.6, 4.3, 4.4, 4.5
A10021-5TE	WR19	very very long+, many eyes, high tuber number+, pointed++, foot long, large, light skin	3.8, 3.8, 3.7, 3.7
A08433-4VR	WR19	nonuniform shape, oval to very long, it heals dark, pointed+, some very large and long, large number of smalls, very high tuber number, knobs, a little flat	3.4, 3.8, 3.8, 3.8
A08422-4VRsto	WR19	several rotten, very long, curved, pointed, light skin+, high tuber number+, large, ZC 10%, bad shape, angular,	3.6, 3.6, 3.6, 3.7
Reveille Russet	ADVTXRU	BOT+, impressive high tuber number, excellent shape, very nice shape+	4.6, 4.6, 4.2, 4.4
AOR07781-5	WR19	very large+, very long+, many eyes+, lighth eyes+, pointed+, knobs+, high tuber number, deep eyes, similar to Russet Norkotah, yellow flesh, parent	3.5, 3.5, 3.8, 3.8
COTX08322-10Ru	SW19	BOT+++ , nice, bulky+, advance, prepare PVP, very high tuber number, snow white, nice shape, ZC 10%	4.4, 4.4, 4.2, 4.6
A071012-4BF	WR19	nonuniform shape, oval to very long, heals dark, knobs, pointed, light skin	3.5, 3.7, 3.7, 3.5
A07061-6	WR19	nonuniform shape+, round+, oval+, oblong, nonuniform skin, buff skin, light skin++, high tuber number, misshapen	3.4, 3.6, 3.7, 3.6
A07769-4	WR19	nonuniform skin, nice shape, blocky+, nice skin	3.6, 3.6, 4.3, 3.8
COTX05095-2Ru/Y	WR19	nonuniform shape and size, knobs, DROP, parent for flesh color, very nice shape, blocky, light skin, small-medium, yellow flesh+, golden skin	3.4, 4, 3.6, 3.6
POR12NCK50-1	WR19	medium, good shape, high tuber number, skinny	3.8, 3.7, 3.7, 3.8
Shepody	WR19	heat sprouts, knobs+++ , light skin++, high tuber number++, ugly, bad shape, nonuniform shape, deformed tubers, misshapen	3.5, 3.6, 3.6, 3.6
OR12133-10	WR19	nice, very light skin+++ , skinny+, misshapen, ZC 20%	4, 3.8, 3.6, 3.8
Ranger Russet	WR19	deep eyes, rugged+, high tuber number, pointed	3.4, 3.6, 3.7, 3.6
Russet Burbank	WR19	dislike shape, many knobs+, terrible shape, misshapen	3, 3, 2.8, 3.5
CO10091-1RU	WR19		3.5, 3.5, 3.5, 3.6
CO10087-4RU	WR19	nice skin, good shape+, very few tubers, bad rep?, golden russet skin	4, 2.8, 4.2, 4.2
AO02183-2	WR19	skinny+, many eyes, light eyes, very long, knobs+, pointed	3.2, 3.6, 3.7, 3.7
CO09205-2RU	WR19	few tubers, nice skin, small	2.8, 3.8, 3.4, 3.4
COTX08063-2Ru	ADVTXRU	skinny+, pointed+, some long, small, DROP+, very light skin+, small-medium	3.6, 3.3, 3.3, 3.6
CO09076-3RU	WR19	few tuber number, misshapen, knobs, skinny+, pointed, knobs, heat sprouts	2.8, 3.3, 3.3, 2.8
CO11009-3RU	SW19	dark skin, misshapen+, pointed+	3.7, 3.6, 3.5, 3.7
CO10085-1RU	SW19	many smalls+, oval, heat sprouts, chained tubers, knobs, bad shape, ,	2.5, 2.5, 2.8, 2.5

Western Regional Red/Specialty Trial, Dalhart

This trial consisted of six entries, including the check varieties Red LaSoda and Chieftain.

Results: (Dalhart Tables 3a, 3b, 3c, 3d, and 3e)

- COTX04193s-2R/Y had a high general rating and best of trial designation, while Chieftain and A08112-7R also had high general ratings (Table 3a and 3e).
- Chieftain had the highest total and yield of 4-6 oz. tubers, while Red LaSoda had the highest marketable yield. A08112-7R had the highest yield of less than 4 oz. tubers (Table 3b).
- Red LaSoda had the highest percentage of marketable yield, while A08112-7R had the highest percentage of less than 4 oz. tubers (Table 3b).
- ATTX05175s-1R/Y had the highest specific gravity (Table 3b).
- A08112-7R had the highest average number of tubers per plant (Table 3c).
- All the entries were late in maturity, except for Chieftain and COTX04193s-2R/Y which were early in maturity (Table 3c).
- Red LaSoda and MSW343-2R had the deepest eyes (Table 3d).
- ATX06264s-4R/Y, ATTX05175s-1R/Y, and COTX04193s-2R/Y had very dark yellow flesh. Chieftain had 40% internal brown spot (Table 3d).

Comments on entries:

- Chieftain Round Red uniform size and shape, red eyes, some skin color variation, high tuber number+, parent for high yield and high tuber number, FC=1.0
- Red LaSoda Oval Red deep eyes+++, nonuniform shape, many culls (knobs), large, very high tuber number, parent for tuber number and yield++, FC=1.0
- A08112-7R Round Red small+, uniform shape and size++, attached stolons++, medium size, nice, FC=1.0
- ATX06264s-4R/Y Round Red small+, uniform size and shape+++, high tuber number, FC=3.6
- ATTX05175s-1R/Y Round Red very small+++, uniform size and shape+++, FC=4.0
- COTX04193s-2R/Y Round Red uniform size and shape, nice+, all small, mixed white and yellow flesh, intense yellow flesh+, mango yellow flesh, BOT, FC=4.0

Summary:

COTX04193s-2R/Y, Chieftain and A08112-7R were the best entries based on all factors.

Dalhart
Table 3a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 6 entries in the Western Regional Red/Specialty Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz					10-18 oz
Chieftain	WR19	619.5	284.1	166.2	100.8	17.2	0.0	302.2	33.1	4.3
Red LaSoda	WR19	604.2	298.1	146.7	106.2	45.3	0.0	206.1	100.0	3.7
A08112-7R	WR19	381.7	31.1	28.0	3.1	0.0	0.0	334.5	16.1	4.1
ATX06264s-4R/Y	WR19	400.3	45.6	37.8	7.9	0.0	0.0	332.2	22.4	3.8
ATTX05175s-1R/Y	WR19	338.2	29.9	29.9	0.0	0.0	0.0	281.8	26.6	3.8
COTX04193s-2R/Y	WR19	429.0	112.6	86.3	26.2	0.0	0.0	303.0	13.4	4.1
Average		462.1	133.6	82.5	40.7	10.4	0.0	293.3	35.3	4.0
L.S.D. (.05)		112.6	90.6	45.3	45.8	14.9		39.1	22.9	0.3

¹ 1=very poor to 5= excellent

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Table 3b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 6 entries in the Western Regional Red/Specialty Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Chieftain	WR19	41.5	25.0	14.5	2.3	0.0	52.5	5.8	1.060	13.3	Round	Red
Red LaSoda	WR19	49.3	24.5	17.3	7.8	0.0	34.3	16.5	1.055	12.2	Oval	Red
A08112-7R	WR19	7.5	6.8	0.8	0.0	0.0	88.5	4.0	1.063	13.8	Round	Red
ATX06264s-4R/Y	WR19	10.0	8.5	1.8	0.0	0.0	84.0	5.8	1.056	12.5	Round	Red
ATTX05175s-1R/Y	WR19	8.8	8.8	0.0	0.0	0.0	83.8	7.5	1.066	14.3	Round	Red
COTX04193s-2R/Y	WR19	25.8	19.8	6.0	0.0	0.0	71.3	3.0	1.057	12.6	Round	Red
Average		23.8	15.5	6.7	1.7	0.0	69.0	7.1	1.059	13.1		
L.S.D. (.05)		10.8	6.2	5.8	2.2		9.6	4.5	0.003	0.6		

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Table 3c. Average number of tubers per plant, tuber weight, percent stand 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 6 entries in the Western Regional Red/Specialty Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
Chieftain	WR19	11.8	5.4	97	1.8	3.8	3.6	3.9	28	1.10	1.27	7.4	6.7	5.3
Red LaSoda	WR19	9.9	4.6	100	2.0	4.2	5.0	4.0	1	1.25	1.18	8.3	6.6	5.6
A08112-7R	WR19	16.3	1.7	98	1.9	3.8	5.0	3.9	1	1.18	1.12	6.7	5.7	5.1
ATX06264s-4R/Y	WR19	15.5	1.9	100	2.0	3.9	4.2	3.9	11	1.09	1.20	6.6	6.0	5.0
ATX05175s-1R/Y	WR19	15.2	1.7	98	2.1	4.1	5.0	4.0	0	1.12	1.21	6.2	5.6	4.6
COTX04193s-2R/Y	WR19	12.4	2.6	98	1.6	3.7	3.1	3.8	56	1.07	1.24	6.9	6.4	5.2
Average		13.5	3.0	98	1.9	3.9	4.3	3.9	16	1.14	1.20	7.0	6.2	5.1
L.S.D. (.05)		ns	2.1	ns	ns	ns	0.3	ns	5	0.06	0.06	0.6	0.4	0.4

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

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Table 3d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Western Regional Red/Specialty Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
Chieftain	WR19	1.0	2.0	1.0	3.8	3.5	4.8	5.0	5.0	4.4	4.6	0	0	3	40
Red LaSoda	WR19	1.0	2.6	1.0	3.5	3.8	5.0	5.0	5.0	4.0	4.0	0	0	15	0
A08112-7R	WR19	1.0	1.0	1.0	4.0	4.0	5.0	5.0	5.0	4.5	4.9	0	0	0	0
ATX06264s-4R/Y	WR19	3.6	1.0	1.0	4.0	4.0	4.8	5.0	5.0	4.5	5.0	0	0	0	0
ATTX05175s-1R/Y	WR19	4.0	1.0	1.0	3.8	3.8	4.5	5.0	5.0	4.1	4.8	0	0	5	0
COTX04193s-2R/Y	WR19	4.0	1.2	1.0	4.0	4.5	4.6	5.0	5.0	4.7	4.8	0	0	3	0
Average		2.4	1.5	1.0	3.8	3.9	4.8	5.0	5.0	4.4	4.7	0	0	4	7
L.S.D. (.05)		0.1			0.1	ns	0.0			0.4	0.1			6.4	8.3

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 3e.

Notes and general rating for all reps of 6 entries in the Western Regional Red/Specialty Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Notes Grading	General Rating Grading
Chieftain	WR19	uniform size and shape, red eyes, some skin color variation, high tuber number+, parent for high yield and high tuber number	4, 4.2, 4.5, 4.4
Red LaSoda	WR19	deep eyes+++, nonuniform shape, many culls (knobs), large, very high tuber number, parent for tuber number and yield++	3.8, 3.5, 3.8, 3.8
A08112-7R	WR19	small+, uniform shape and size++, attached stolons++, medium size, nice	3.8, 4.4, 4, 4
ATX06264s-4R/Y	WR19	small+, uniform size and shape+++, high tuber number	3.6, 4, 3.7, 4
ATTX05175s-1R/Y	WR19	very small+++, uniform size and shape+++	4, 3.7, 3.8, 3.7
COTX04193s-2R/Y	WR19	BOT, uniform size and shape, nice+, all small, mixed white and yellow flesh, intense yellow flesh+, mango yellow flesh	4.4, 4.5, 3.8, 3.8

Western Regional and Texas Advanced White/Yellow Trial, Dalhart

This trial consisted of nine entries, including the check variety Yukon Gold.

Results: (Dalhart Tables 4a, 4b, 4c, 4d, and 4e)

- Yukon Gold had the highest general rating (Table 4a).
- CO10097-2W/Y had the highest total yield, while Yukon Gold had the highest marketable and yield of over 6 oz. tubers (Table 4a).
- CO10097-2W/Y had the highest yield of less than 4 oz. tubers, while CO10098-5W/Y had the highest yield of culls/No. 2 tubers (Table 4a, 4b).
- Yukon Gold had the highest percentage of marketable yield, while POR14PG22-3 had the highest percentage of less than 4 oz. tubers. CO10098-5W/Y had the highest percentage of culls/No. 2 tubers (Table 4b).
- CO10064-1W/Y and CO10098-5W/Y had the highest specific gravity (Table 4b).
- CO09218-4W/Y, CO11250-1W/Y, and CO11266-1W/Y had the highest average number of tubers per plant (Table 4c).
- All the entries were later in maturity than Yukon Gold (Table 4c).
- CO10098-5W/Y and CO09218-4W/Y had the darkest yellow flesh color. CO09128-5W/Y had the highest percentage of vascular discoloration, while Yukon Gold and CO09128-5W/Y had the highest percentage of internal brown spot (Table 4d).

Comments on entries:

- CO10097-2W/Y Round White angular tubers, it looks like a chipper, buff skin, small, FC=3.6
- Yukon Gold Round White large tubers+, nice, high tuber number+, FC=2.9
- CO11250-1W/Y Oval White pink eyes+++ , high tuber number, small+++ , knobs, oval, pears, FC=3.6
- CO11266-1W/Y Round White pink splashed skin, knobs, chained tubers, small, non-uniform shape, pears, pink eyes+, attached stolons, very intense yellow flesh, DROP, FC=3.9
- CO09128-5W/Y Compressed White scab, uniform size, uniform shape, small, nice, FC=3.8

- CO10064-1W/Y Round White small, nonuniform skin type, small+, FC=2.7
- CO10098-5W/Y Round White heat sprouts+++extreme knobs++, terrible, very intense yellow flesh, DROP+++, FC=4.7
- POR14PG22-3 Round White angular tubers, very small+, very smooth skin++, very light skin color+, very clean look, shiny, FC=1.8
- CO09218-4W/Y Oval White heat sprouts+, knobs+, attached stolons, very small, very few tubers, pointed, pears, terrible chained tubers, DROP+, FC=4.2

¹FC=Flesh color intensity, 1=very light to 4=very dark

Summary:

None of the entries performed better than Yukon Gold.

Dalhart
Table 4a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 9 entries in the Western and Southwestern Regional White/Yellow Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz					10-18 oz
CO10097-2W/Y	WR19	499.4	129.0	91.1	38.0	0.0	0.0	370.4	0.0	3.6
Yukon Gold	WR19	489.4	304.3	139.3	135.1	29.9	0.0	162.3	22.8	4.3
CO11250-1W/Y	SW19	421.6	89.7	89.7	0.0	0.0	0.0	288.4	43.6	3.6
CO11266-1W/Y	SW19	364.1	84.3	78.1	6.2	0.0	0.0	248.2	31.6	3.5
CO09128-5W/Y	WR19	337.8	41.2	41.2	0.0	0.0	0.0	296.6	0.0	3.7
CO10064-1W/Y	WR19	277.3	8.2	8.2	0.0	0.0	0.0	244.3	24.7	3.5
CO10098-5W/Y	WR19	233.4	6.9	6.9	0.0	0.0	0.0	104.1	122.4	2.1
POR14PG22-3	WR19	194.6	11.0	8.8	2.2	0.0	0.0	174.7	8.9	3.3
CO09218-4W/Y	WR19	89.7	3.0	3.0	0.0	0.0	0.0	55.9	30.8	1.9
Average		323.0	75.3	51.8	20.2	3.3	0.0	216.1	31.6	3.3
L.S.D. (.05)		72.2	57.6	34.8	26.4	12.7		45.0	23.9	0.3

¹ 1=very poor to 5= excellent

Dalhart
Table 4b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 9 entries in the Western and Southwestern Regional White/Yellow Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
CO10097-2W/Y	WR19	25.7	18.1	7.6	0.0	0.0	74.3	0.0	1.064	14.0	Round	White
Yukon Gold	WR19	61.0	27.9	27.6	5.5	0.0	34.2	4.8	1.066	14.3	Round	White
CO11250-1W/Y	SW19	21.5	21.5	0.0	0.0	0.0	68.7	9.8	1.074	15.7	Oval	White
CO11266-1W/Y	SW19	22.4	21.0	1.4	0.0	0.0	68.3	9.3	1.063	13.8	Round	White
CO09128-5W/Y	WR19	12.9	12.9	0.0	0.0	0.0	87.1	0.0	1.068	14.6	Compressed	White
CO10064-1W/Y	WR19	2.4	2.4	0.0	0.0	0.0	89.3	8.3	1.077	16.3	Round	White
CO10098-5W/Y	WR19	2.5	2.5	0.0	0.0	0.0	44.9	52.6	1.082	17.2	Round	White
POR14PG22-3	WR19	4.4	3.5	0.9	0.0	0.0	91.1	4.4	1.065	14.1	Round	White
CO09218-4W/Y	WR19	3.6	3.6	0.0	0.0	0.0	72.1	24.3	1.051	11.6	Oval	White
Average		17.4	12.6	4.2	0.6	0.0	70.0	12.6	1.068	14.6		
L.S.D. (.05)		8.7	7.7	3.4	2.3		12.8	10.3	0.003	0.6		

Dalhart
Table 4c. Average number of tubers per plant, tuber weight, percent stand 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 9 entries in the Western and Southwestern Regional White/Yellow Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
CO10097-2W/Y	WR19	16.4	2.3	96	2.0	3.9	4.7	3.9	5	1.19	1.06	7.4	6.2	5.8
Yukon Gold	WR19	9.1	4.3	89	1.1	3.3	3.7	3.6	18	1.15	1.18	7.6	6.6	5.7
CO11250-1W/Y	SW19	19.5	2.0	79	2.0	3.0	4.9	3.7	1	1.40	1.15	8.0	5.8	5.0
CO11266-1W/Y	SW19	19.3	2.0	72	1.5	2.1	5.0	2.9	0	1.39	1.13	7.8	5.6	5.0
CO09128-5W/Y	WR19	14.2	1.7	100	1.9	3.9	4.6	3.9	5	1.05	1.15	6.3	6.0	5.2
CO10064-1W/Y	WR19	14.5	1.4	100	1.9	3.7	4.6	3.7	3	1.13	1.19	6.1	5.4	4.5
CO10098-5W/Y	WR19	14.7	2.0	60	1.6	2.1	5.0	3.2	0	1.41	1.17	7.2	5.2	4.5
POR14PG22-3	WR19	14.1	1.0	100	2.0	3.8	4.9	3.7	0	1.14	1.16	6.2	5.5	4.7
CO09218-4W/Y	WR19	24.5	1.0	25	1.0	1.0	5.0	1.0	0	1.31	1.17	6.5	5.0	4.3
Average		16.2	2.0	80	1.7	3.0	4.7	3.3	3	1.24	1.15	7.0	5.7	5.0
L.S.D. (.05)		3.6	0.3	13	0.2	0.6	0.3	0.3	5	0.28	ns	1.3	1.1	1.0

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart
Table 4d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 9 entries in the Western and Southwestern Regional White/Yellow Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
CO10097-2W/Y	WR19	3.6	1.3	2.3	4.0	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	8
Yukon Gold	WR19	2.9	1.5	1.0	4.0	1.0	4.8	5.0	5.0	4.9	5.0	3	0	0	25
CO11250-1W/Y	SW19	3.6	1.8	1.0	4.0	1.0	5.0	5.0	5.0	3.9	5.0	0	0	3	3
CO11266-1W/Y	SW19	3.9	1.3	1.1	4.0	1.0	5.0	5.0	5.0	3.6	5.0	0	0	10	0
CO09128-5W/Y	WR19	3.8	1.0	1.5	4.0	1.0	5.0	5.0	4.5	4.9	5.0	0	0	3	25
CO10064-1W/Y	WR19	2.7	1.0	1.1	3.9	1.0	5.0	5.0	5.0	4.0	5.0	0	0	0	3
CO10098-5W/Y	WR19	4.7	2.6	1.0	4.0	1.0	5.0	5.0	5.0	1.5	5.0	0	3	0	0
POR14PG22-3	WR19	1.8	1.0	1.0	3.7	1.0	5.0	5.0	5.0	4.8	5.0	0	0	0	0
CO09218-4W/Y	WR19	4.2	1.9	1.0	4.0	1.0	5.0	5.0	5.0	2.8	5.0	0	0	3	0
Average		3.4	1.5	1.2	4.0	1.0	5.0	5.0	4.9	3.9	5.0	0.6	0	2	7
L.S.D. (.05)		0.3	0.1	0.1	0.0	ns	0.0	ns	0.8	0.0	0.3	ns	ns	ns	12.1

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 4e.

Notes and general rating for all reps of 9 entries in the Western and Southwestern Regional
White/Yellow Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Notes Grading	General Rating Grading
CO10097-2W/Y	WR19	angular tubers, it looks like a chipper, russet skin, different market group?, buff skin, small	3.5, 3.6, 3.6, 3.6
Yukon Gold	WR19	impressive number of tubers, large tubers+, nice, high tuber number+	3.6, 4.6, 4.6, 4.4
CO11250-1W/Y	SW19	pink eyes+++ , high tuber number, small+++ , knobs, oval, pears	3.6, 3.6, 3.7, 3.6
CO11266-1W/Y	SW19	, pink splashed skin , knobs, chained tubers, small, nonuniform shape, DROP, pears, pink eyes, pink eyes,	3.6, 3.5, 3.4, 3.6
CO09128-5W/Y	WR19	scab, uniform size, uniform shape, small, nice	3.6, 3.7, 3.6, 3.7
CO10064-1W/Y	WR19	small, nonuniform skin type, small+	3.3, 3.5, 3.5, 3.5
CO10098-5W/Y	WR19	heat sprouts+++ , DROP+++ , extreme knobs++ , terrible, very intense yellow flesh	2.5, 2, 1.5, 2.5
POR14PG22-3	WR19	angular tubers, very small+ , very smooth skin++ , very light skin color+ , very clean look, shinny	3, 3.4, 3.3, 3.5
CO09218-4W/Y	WR19	heat sprouts+ , knobs+ , attached stolons, very small, very few tubers, pointed, pears, terrible, DROP+ , chained tubers	1.6, 2.5, 1.5, 1.8

Texas Advanced Chip Selection Trial, Dalhart

This trial consisted of thirty-three entries, including the check varieties Atlantic and Snowden.

Results: (Dalhart Tables 5a, 5b, 5c, 5d, 5e, 5f, and 5g)

- NDTX1244-3W/Y, NDTX14362AB-1W, NDTX1482YB-1W, AORTX09037-4W/Y, Snowden, and NDTX113030C-3W had the best ratings for chip quality, while NDTX12203AB-1W, Snowden, and COTX12235-2W had a high general rating and a best of trial designation for tuber appearance. NDTX14362AB-1W, NDTX12203AB-1W, Atlantic Dal, COTX13231-1W, Atlantic, TX14668-3WZC, NDTX13280CB-3W, ATX13134-3W/Y, AORTX09037-1W/Y, COTX13231-4W, AORTX09037-5W/Y, NDTX1432Y-2Y/Y, NDTX1444-5W, and NDTX1482YB-1W had high general ratings for tuber appearance. NDTX14362AB-1W, NDTX1244-3W/Y, NDTX1482YB-1W, COTX13231-5W, COTX12235-2W, AORTX09037-4W/Y, AORTX09033-11W, NDTX12135-1W, Snowden, NDTX1444-5W, COTX13230-1W, AORTX09037-5W/Y, NDTX12203AB-1W, and ATTX10333-1W/Y had over 80% good chips (Tables 5a, 5e, and 5f).
- AORTX09037-1W/Y had the highest total yield, while Atlantic had the highest marketable yield. NDTX12203AB-1W had the highest yield of 4-6 oz. tubers (Table 5a).
- AORTX09037-1W/Y had the highest yield of less than 4 oz. tubers, while NDTX13315CB-1W had the highest yield of Culls/No.2 tubers (Table 5a).
- Atlantic had the highest percentage of marketable yield. NDTX12203AB-1W had the highest percentage of 4-6 oz. tubers, while COTX12235-2W had the highest percentage of less than 4 oz. tubers (Table 5b).
- ATTX10333-1W/Y and AORTX09033-11W had the highest specific gravity (Table 5b).
- AORTX09037-1W/Y and COTX15425-1Y/Y had the highest average number of tubers per plant (Table 5c).
- AORTX09037-1W/Y, NDTX1244-3W/Y, AORTX09037-4W/Y, COTX12235-2W, COTX13230-1W, AORTX09033-11W, NDTX12135-1W, and NDTX1488-1W/Y were the latest in maturity, while NDTX13280CB-3W, NDTX1246-5W/Y, and ATTX10333-1W/Y were the earliest in maturity (Table 5c).
- ATX13126-5Ru and NDTX13224CAB-1W had the highest percentage hollow heart (Table 5d).
- AORTX09037-1W/Y, Atlantic Dal, and Atlantic had the highest percentage of internal brown spot (Table 5d).

- NDTX14362AB-1W, NDTX1244-3W/Y, NDTX1444-5W, NDTX1482YB-1W, AORTX09037-5W/Y, AORTX09037-4W/Y, NDTX12135-1W, AORTX09033-11W, NDTX113030C-3W, NDTX12203AB-1W, COTX12235-2W, Snowden, ATTX10333-1W/Y, TX14668-3WZC, TX12484-2WZC, COTX13231-5W, COTX13231-1W, COTX13230-1W, and NDTX13280CB-3W had the highest scores for chip quality values for chipping out of the field. NDTX14362AB-1W, NDTX1244-3W/Y, NDTX1482YB-1W, COTX13231-5W, COTX12235-2W, AORTX09037-4W/Y, AORTX09033-11W, NDTX12135-1W, Snowden, NDTX1444-5W, COTX13230-1W, AORTX09037-5W/Y, NDTX12203AB-1W, and ATTX10333-1W/Y had the highest percentages of good chips for chipping out of the field (Table 5f).
- AORTX09037-1W/Y, NDTX1444-5W, NDTX1482YB-1W, ATX13134-3W/Y, NDTX1246-5W/Y, Snowden, ATTX10389-W, COTX12235-2W, NDTX113030C-3W, and COTX13230-1W had acceptable chip quality scores (<3) out of cold storage (42° F for six weeks) (Table 5g).
- AORTX09037-1W/Y, NDTX1244-3W/Y, NDTX1444-5W, TX12484-2WZC, NDTX1482YB-1W, ATX13134-3W/Y, NDTX1246-5W/Y, Snowden, AORTX09033-11W, ATTX10389-W, COTX12235-2W, NDTX113030C-3W, COTX13230-1W, ATTX10333-1W/Y, TX12484-3WZC, NDTX12135-1W, and COTX12428-1W had acceptable chip quality scores (<3) following two weeks of reconditioning (65°F) (Table 5g).

Comments on entries:

- AORTX09037-1W/Y Round White small, FC=2.1, CR=1.1,
- NDTX1244-3W/Y Round White high tuber number++, FC=1.9, CR=1.2,
- NDTX13280CB-3W Round White smooth skin, small, mixed flesh color+, FC=1.0, CR=1.2
- NDTX14362AB-1W Round White small, high tuber number, nice, heat sprouts, very light-yellow flesh, FC=1.0, CR=1.2
- NDTX12203AB-1W Round White large tubers+, high tuber number, rough skin, BOT, FC=1.0, CR=1.2
- TX14668-3WZC Round White flat, FC=1.0, CR=1.2
- Atlantic Dal Round Buff attached stolons, flat, ugly skin, drop, FC=1.0, CR=1.3
- NDTX1444-5W Round White uniform, nice size+, medium size, small, uniform, nice skin, uniform, FC=1.0, CR=1.3
- COTX13231-1W Round White uniform+, nice, mixed flesh, small, uniform, FC=1.0, CR=1.3
- TX12484-2WZC Round White FC=1.0, CR= 1.4

• Atlantic	Round	Buff	pointed, nice skin, FC=1.0, CR=1.4
• NDTX1482YB-1W	Round	White	dirty look, large tubers+, high tuber number, FC=1.0, CR=1.4
• ATX13134-3W/Y	Round	White	large tubers+, severe scab, FC=2.3, CR=1.4
• NDTX13315CB-1W	Round	White	small++, uniform+, nice shape, FC=1.0, CR=1.5
• AORTX09037-5W/Y	Round	White	flat, angular tubers+, bad shape, FC=1.4, CR=1.5,
• COTX13231-4W	Round	White	FC=1.0, CR=1.5
• NDTX1246-5W/Y	Round	White	large tubers+, dirty look, angular tubers, FC=2.2, CR=1.5
• COTX15425-1Y/Y	Round	White	buff skin, FC=3.0, CR=1.5
• NDTX1432Y-2Y/Y	Round	White	large tubers, dirty look, nice, FC=2.3, CR=1.5
• AORTX09037-4W/Y	Round	White	angular tubers+++, flat, heat sprouts, large tubers, attached stolons, ugly shape, drop, FC=1.6, CR=1.6
• COTX13231-5W	Round	White	angular tubers, large tubers, high tuber number, bad shape, FC=1.0, CR=1.6
• Snowden	Round	Buff	flat, beautiful skin+, BOT, FC=1.0, CR=1.7
• AORTX09033-11W	Round	White	angular tubers, large tubers, FC=1.0, CR=1.7
• ATTX10389-1W	Round	White	FC=1.0, CR= 1.7
• COTX12235-2W	Round	White	large tubers++, uniform+++, nice, BOT, FC=1.0, CR=1.8
• NDTX113030C-3W	Round	White	pointed, pear shape, large tubers+, high tuber number, FC=1.0, CR= 1.8
• COTX13230-1W	Round	White	dirty look, high tuber number, nice skin, FC=1.0, CR=2.0
• ATTX10333-1W/Y	Round	White	FC=2.2, CR=2.0
• TX12484-3WZC	Compressed	White	pinkish skin+, angular tubers+, FC=1.0, CR=2.1
• COTX15345-1Y/Y	Round	White	oval, uniform, nice, beautiful skin, nice+, FC=3.0, CR=2.3
• NDTX12135-1W	Round	White	large tubers+, uniform, FC=1.0, CR=2.3
• COTX12428-1W	Round	White	attached stolons, buff skin, uniform, large tubers+, FC=1.0, CR=2.3
NDTX1488-1W/Y	Round	White	attached stolons, angular tubers, FC=2.0, CR=2.3

¹FC=Flesh color intensity, 1=very light to 4=very dark

¹CR=chip quality rating 1=light to 6= dark

Summary:

NDTX14362AB-1W, NDTX1244-3W/Y, NDTX1444-5W, NDTX1482YB-1W, AORTX09037-5W/Y, AORTX09037-4W/Y, NDTX12135-1W, AORTX09033-11W, NDTX113030C-3W, NDTX12203AB-1W, COTX12235-2W, Snowden, ATTX10333-1W/Y, TX14668-3WZC, TX12484-2WZC, COTX13231-5W, COTX13231-1W, COTX13230-1W, and NDTX13280CB-3W had the highest scores for chip quality values for chipping out of the field. NDTX14362AB-1W, NDTX1244-3W/Y, NDTX1482YB-1W, COTX13231-5W, COTX12235-2W, AORTX09037-4W/Y, AORTX09033-11W, NDTX12135-1W, Snowden, NDTX1444-5W, COTX13230-1W, AORTX09037-5W/Y, NDTX12203AB-1W, and ATTX10333-1W/Y had the highest percentages of good chips for chipping out of the field. NDTX12203AB-1W, Snowden, and COTX12235-2W had a high general rating and a best of trial designation for tuber appearance. NDTX14362AB-1W, NDTX12203AB-1W, Atlantic Dal, COTX13231-1W, Atlantic, TX14668-3WZC, NDTX13280CB-3W, ATX13134-3W/Y, AORTX09037-1W/Y, COTX13231-4W, AORTX09037-5W/Y, NDTX1432Y-2Y/Y, NDTX1444-5W, and NDTX1482YB-1W had high general ratings for tuber appearance.

Disposition:

AORTX09033-11W	Keep, enter in NCPT
AORTX09037-1W/Y	Move to SW, use clean seed from CO
AORTX09037-4W/Y	Keep, produce minitubers, verify Ryadg marker
AORTX09037-5W/Y	Keep
ATTX10333-1W/Y	Keep
ATTX10389-1W	DROP
ATX13134-3W/Y	Keep, enter in TC and NCPT
COTX12235-2W	Keep, produce minitubers
COTX12428-1W	DROP
COTX13230-1W	Keep
COTX13231-1W	Keep and enter in TC, enter in NCPT
COTX13231-4W	Keep, enter in TC and NCPT
COTX13231-5W	DROP
COTX15345-1Y/Y	DROP
COTX15425-1Y/Y	DROP
NDTX113030C-3W	Keep
NDTX12135-1W	DROP
NDTX12203AB-1W	Keep, produce minitubers in 2020
NDTX1244-3W/Y	Keep

NDTX1246-5W/Y	DROP
NDTX13280CB-3W	Keep and enter in TC
NDTX13315CB-1W	Keep
NDTX1432Y-2Y/Y	DROP
NDTX14362AB-1W	DROP
NDTX1444-5W	Keep and enter in TC, enter in NCPT
NDTX1482YB-1W	Keep, enter in TC and NCPT
NDTX1488-1W/Y	DROP
TX12484-2WZC	Keep, produce minituber
TX12484-3WZC	Keep, send minitubers to CO in 2020
TX14668-3WZC	DROP

Dalhart
Table 5a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 33 entries in the Texas Advanced Chip Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz					10-18 oz
AORTX09037-1W/Y	TXCH	670.1	190.0	158.5	27.3	4.1	3.8	441.0	35.3	4.1
NDTX1244-3W/Y	TXCH	595.9	224.2	141.4	80.2	2.6	0.0	349.8	21.8	3.7
NDTX13280CB-3W	EGSS19	582.0	201.3	146.6	52.7	1.9	0.0	364.3	16.4	4.1
NDTX14362AB-1W	NCPT19 Tier 1	578.9	315.3	204.1	106.2	5.0	0.0	255.9	7.8	4.6
NDTX12203AB-1W	TXCH	575.3	297.1	205.2	68.6	23.2	0.0	259.0	19.2	4.4
TX14668-3WZC	TXCH	567.3	293.0	178.2	100.1	14.6	0.0	227.8	46.6	4.1
Atlantic Dal	TXCH	562.0	323.8	184.5	116.8	22.5	0.0	217.3	20.8	4.3
NDTX1444-5W	TXCH	553.8	273.7	157.2	88.0	28.6	0.0	258.2	21.8	4.0
COTX13231-1W	TXCH	552.5	255.0	150.8	76.1	28.1	0.0	285.5	12.0	4.3
TX12484-2WZC	TXCH	548.3	249.5	180.4	57.8	11.3	0.0	286.7	12.1	3.8
Atlantic	WR19	532.1	323.5	158.8	133.5	31.2	0.0	199.6	9.0	4.2
NDTX1482YB-1W	TXCH	527.5	129.0	105.0	24.0	0.0	0.0	356.1	42.3	4.0
ATX13134-3W/Y	EGSS19	522.9	155.9	137.5	16.5	1.9	0.0	360.2	6.7	4.1
NDTX13315CB-1W	TXCH	520.9	241.8	138.2	94.9	8.7	0.0	197.9	81.2	3.8
AORTX09037-5W/Y	TXCH	515.9	138.1	109.0	29.1	0.0	0.0	370.6	7.2	4.0
COTX13231-4W	TXCH	515.4	256.6	168.0	82.4	6.2	0.0	232.7	26.2	4.1
NDTX1246-5W/Y	NCPT19 Tier 2	504.5	230.6	159.5	63.3	7.9	0.0	265.0	8.8	3.8
COTX15425-1Y/Y	TXCH	491.7	189.2	132.5	53.3	3.4	0.0	277.7	24.7	3.7
NDTX1432Y-2Y/Y	TXCH	488.7	203.3	163.4	40.0	0.0	0.0	277.4	7.9	4.0
AORTX09037-4W/Y	TXCH	484.7	127.7	117.4	10.3	0.0	0.0	332.4	24.6	3.7
COTX13231-5W	TXCH	470.0	72.3	70.0	2.3	0.0	0.0	351.9	45.9	3.7
Snowden	WR19	454.4	198.7	126.2	59.9	12.6	0.0	249.8	5.8	3.7
AORTX09033-11W	EGSS19	453.7	148.0	116.8	27.7	3.5	0.0	287.8	17.8	3.7
ATTX10389-1W	TXCH	452.2	203.8	135.3	65.9	2.6	0.0	247.7	0.7	3.8
COTX12235-2W	TXCH	446.8	87.2	74.5	12.7	0.0	0.0	351.1	8.6	3.8
NDTX113030C-3W	TXCH	433.9	168.4	110.6	49.0	8.8	0.0	250.6	14.9	3.8
COTX13230-1W	TXCH	422.0	147.4	105.5	42.0	0.0	0.0	251.0	23.6	3.8
ATTX10333-1W/Y	TXCH	417.9	143.5	122.3	21.2	0.0	0.0	267.7	6.7	3.7
TX12484-3WZC	TXCH	413.1	155.5	117.9	35.5	2.1	0.0	257.6	0.0	3.9
COTX15345-1Y/Y	TXCH	398.0	184.6	95.6	54.6	34.4	0.0	196.3	17.0	3.6
NDTX12135-1W	NCPT19 Tier 1	398.0	170.1	141.7	23.8	4.6	0.0	222.6	5.3	3.7
COTX12428-1W	TXCH	360.6	87.6	71.3	14.0	2.4	0.0	264.6	8.4	3.7
NDTX1488-1W/Y	TXCH	358.0	155.1	110.5	30.2	14.4	0.0	183.0	19.9	3.7
Average		496.0	198.2	136.2	53.3	8.7	0.1	278.7	19.0	3.9
L.S.D. (.05)		82.3	67.5	49.1	37.3	15.9	ns	50.1	22.2	0.2

¹ 1=very poor to 5= excellent

Dalhart
Table 5b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 33 entries in the Texas Advanced Chip Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
AORTX09037-1W/Y	TXCH	27.6	23.1	4.0	0.6	0.5	66.6	5.3	1.064	13.9	Round	White
NDTX1244-3W/Y	TXCH	37.4	23.5	13.3	0.6	0.0	59.1	3.5	1.066	14.2	Round	White
NDTX13280CB-3W	EGSS19	35.0	25.1	9.4	0.4	0.0	62.2	2.8	1.068	14.6	Round	White
NDTX14362AB-1W	NCPT19 Tier 1	54.1	35.2	18.0	0.9	0.0	44.7	1.3	1.066	14.3	Round	White
NDTX12203AB-1W	TXCH	51.3	35.5	11.8	3.9	0.0	45.3	3.5	1.069	14.8	Round	White
TX14668-3WZC	TXCH	51.3	31.4	17.1	2.7	0.0	40.4	8.3	1.068	14.6	Round	White
Atlantic Dal	TXCH	57.5	33.2	20.4	3.8	0.0	39.1	3.5	1.070	15.0	Round	Buff
NDTX1444-5W	TXCH	49.2	28.4	15.6	5.2	0.0	46.9	3.9	1.067	14.5	Round	White
COTX13231-1W	TXCH	46.1	27.5	13.5	5.0	0.0	51.8	2.1	1.063	13.7	Round	White
TX12484-2WZC	TXCH	45.4	33.0	10.4	2.1	0.0	52.5	2.1	1.068	14.7	Round	White
Atlantic	WR19	60.7	30.2	24.7	5.8	0.0	37.6	1.7	1.067	14.5	Round	Buff
NDTX1482YB-1W	TXCH	24.1	19.9	4.2	0.0	0.0	67.9	8.0	1.066	14.3	Round	White
ATX13134-3W/Y	EGSS19	30.0	26.5	3.2	0.4	0.0	68.6	1.4	1.074	15.7	Round	White
NDTX13315CB-1W	TXCH	46.8	26.5	18.5	1.8	0.0	37.6	15.7	1.070	15.0	Round	White
AORTX09037-5W/Y	TXCH	26.2	20.4	5.8	0.0	0.0	72.4	1.3	1.071	15.2	Round	White
COTX13231-4W	TXCH	49.8	32.7	15.9	1.2	0.0	45.1	5.1	1.061	13.4	Round	White
NDTX1246-5W/Y	NCPT19 Tier 2	42.9	30.1	11.5	1.3	0.0	55.3	1.9	1.063	13.7	Round	White
COTX15425-1Y/Y	TXCH	38.5	27.0	10.8	0.7	0.0	56.5	5.0	1.058	12.9	Round	White
NDTX1432Y-2Y/Y	TXCH	41.9	33.7	8.2	0.0	0.0	56.5	1.6	1.055	12.3	Round	White
AORTX09037-4W/Y	TXCH	25.5	23.4	2.1	0.0	0.0	69.4	5.1	1.069	14.9	Round	White
COTX13231-5W	TXCH	15.6	15.0	0.6	0.0	0.0	75.6	8.9	1.060	13.2	Round	White
Snowden	WR19	43.7	28.0	12.8	2.8	0.0	54.9	1.4	1.066	14.4	Round	Buff
AORTX09033-11W	EGSS19	32.3	25.6	5.9	0.8	0.0	64.0	3.8	1.080	16.8	Round	White
ATX10389-1W	TXCH	45.6	30.3	14.7	0.5	0.0	54.3	0.1	1.060	13.3	Round	White
COTX12235-2W	TXCH	19.5	16.7	2.8	0.0	0.0	78.7	1.8	1.065	14.1	Round	White
NDTX113030C-3W	TXCH	37.3	24.9	10.7	1.7	0.0	59.3	3.4	1.075	15.9	Round	White
COTX13230-1W	TXCH	34.8	25.0	9.8	0.0	0.0	59.7	5.5	1.065	14.2	Round	White
ATX10333-1W/Y	TXCH	34.0	29.1	4.9	0.0	0.0	64.4	1.6	1.085	17.6	Round	White
TX12484-3WZC	TXCH	37.0	28.6	7.9	0.5	0.0	63.0	0.0	1.064	13.9	Round	White
COTX15345-1Y/Y	TXCH	46.2	24.3	13.7	8.2	0.0	49.7	4.1	1.063	13.8	Round	White
NDTX12135-1W	NCPT19 Tier 1	41.8	35.3	5.5	1.0	0.0	56.7	1.5	1.072	15.4	Round	White
COTX12428-1W	TXCH	24.4	20.0	3.7	0.7	0.0	73.2	2.4	1.066	14.3	Round	White
NDTX1488-1W/Y	TXCH	41.9	28.9	9.8	3.2	0.0	51.7	6.4	1.070	14.9	Round	White
Average		39.2	27.2	10.3	1.7	0.0	57.0	3.8	1.067	14.5		
L.S.D. (.05)		9.4	7.9	6.5	2.9	ns	9.6	4.2	0.007	1.3		

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Table 5c.

Average number of tubers and stems per plant, tuber weight, percent stand 40 and 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 33 entries in the Texas Advanced Chip Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Number Stems/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
							Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
AORTX09037-1W/Y	TXCH	16.7	0.3	2.9	100	100	2.1	4.1	4.8	4.2	4	1.13	1.13	7.1	6.3	5.6
NDTX1244-3W/Y	TXCH	14.9	3.4	3.1	96	96	2.1	4.1	5.0	4.2	0	1.06	1.13	6.4	6.1	5.4
NDTX13280CB-3W	EGSS19	14.3	3.6	3.0	100	100	2.0	4.2	1.8	4.3	79	1.09	1.18	6.6	6.1	5.1
NDTX14362AB-1W	NCPT19 Tier 1	11.0	4.1	3.8	100	100	2.3	4.1	3.3	4.2	48	1.10	1.14	6.6	6.0	5.3
NDTX12203AB-1W	TXCH	10.7	3.1	4.0	100	100	2.2	4.0	4.0	4.1	14	1.07	1.16	6.9	6.5	5.6
TX14668-3WZC	TXCH	10.2	5.1	4.1	100	100	1.4	3.5	4.3	3.5	10	1.11	1.17	6.8	6.2	5.3
Atlantic Dal	TXCH	9.4	0.8	4.4	100	100	2.0	3.9	4.1	3.9	19	1.10	1.19	6.9	6.3	5.3
NDTX1444-5W	TXCH	14.3	5.1	3.4	85	85	2.1	3.8	3.8	4.0	19	1.07	1.14	6.6	6.2	5.4
COTX13231-1W	TXCH	10.7	1.9	3.8	100	100	2.0	3.8	3.7	3.8	20	1.09	1.19	6.9	6.3	5.3
TX12484-2WZC	TXCH	11.1	4.9	3.7	98	98	1.8	3.6	4.2	3.7	13	1.25	1.11	7.2	5.8	5.2
Atlantic	WR19	9.1	5.3	4.3	100	100	2.0	4.0	4.3	4.1	10	1.05	1.19	6.6	6.3	5.3
NDTX1482YB-1W	TXCH	15.2	4.6	2.6	97	97	2.0	3.7	3.3	3.7	50	1.16	1.15	6.8	5.9	5.1
ATX13134-3W/Y	EGSS19	13.6	1.3	2.8	100	100	2.1	4.2	3.9	4.2	21	1.07	1.13	6.4	6.0	5.3
NDTX13315CB-1W	TXCH	10.8	4.9	4.5	81	81	1.5	3.5	3.7	3.8	25	1.19	1.16	7.2	6.1	5.2
AORTX09037-5W/Y	TXCH	13.8	0.6	2.8	100	100	2.2	4.0	3.6	4.0	30	1.05	1.21	6.5	6.2	5.1
COTX13231-4W	TXCH	13.2	2.8	3.8	78	78	1.8	3.5	3.6	3.8	53	1.17	1.17	7.2	6.1	5.2
NDTX1246-5W/Y	NCPT19 Tier 2	12.4	3.6	3.1	96	96	2.1	4.0	2.2	4.2	78	1.10	1.20	6.7	6.1	5.1
COTX15425-1Y/Y	TXCH	16.4	2.7	2.3	96	96	2.0	3.9	4.4	3.9	8	1.10	1.23	6.5	5.9	4.8
NDTX1432Y-2Y/Y	TXCH	13.9	4.6	3.0	86	86	1.5	3.2	3.6	3.3	32	1.12	1.18	6.6	5.9	5.0
AORTX09037-4W/Y	TXCH	15.8	0.4	2.2	100	100	2.1	3.9	5.0	3.9	1	1.11	1.17	6.4	5.8	4.9
COTX13231-5W	TXCH	13.3	2.3	2.6	100	100	2.0	3.7	3.6	3.8	36	1.05	1.17	6.2	5.9	5.0
Snowden	WR19	9.8	0.0	3.3	100	100	2.0	4.1	4.7	4.0	5	1.08	1.24	7.0	6.5	5.3
AORTX09033-11W	EGSS19	12.6	0.1	2.6	100	100	2.0	3.6	4.8	3.8	3	1.08	1.17	6.4	5.9	5.1
ATTX10389-1W	TXCH	9.9	1.2	3.5	96	96	1.9	3.6	4.0	3.7	18	1.10	1.20	6.7	6.1	5.1
COTX12235-2W	TXCH	15.1	1.5	2.2	98	98	1.6	3.7	4.9	3.8	3	1.11	1.15	6.4	5.8	5.0
NDTX113030C-3W	TXCH	11.0	2.8	3.1	100	100	1.9	3.7	4.7	3.7	4	1.12	1.23	7.0	6.2	5.1
COTX13230-1W	TXCH	9.9	1.8	3.1	100	100	2.0	3.8	5.0	3.8	0	1.14	1.17	6.7	5.9	5.0
ATTX10333-1W/Y	TXCH	10.1	0.9	3.0	100	100	2.1	3.7	2.7	3.8	12	1.03	1.18	6.0	5.8	4.9
TX12484-3WZC	TXCH	9.8	5.3	3.3	94	94	1.9	3.1	3.6	3.5	30	1.19	1.14	7.1	6.0	5.3
COTX15345-1Y/Y	TXCH	8.9	2.5	3.3	98	98	1.8	3.6	4.0	3.7	19	1.10	1.19	6.7	6.1	5.1
NDTX12135-1W	NCPT19 Tier 1	9.4	3.0	3.2	98	98	1.6	3.5	4.8	3.7	4	1.13	1.18	6.7	6.0	5.1
COTX12428-1W	TXCH	10.9	1.6	2.4	100	100	1.9	3.4	4.4	3.5	11	1.17	1.15	6.7	5.7	5.0
NDTX1488-1W/Y	TXCH	8.8	5.2	3.4	88	88	1.8	2.9	4.8	3.5	10	1.06	1.15	6.6	6.3	5.5
Average		12.0	2.8	3.2	96	96	1.9	3.7	4.0	3.8	21	1.11	1.17	6.7	6.1	5.2
L.S.D. (.05)		2.4	0.0	0.5	8	8	0.2	0.3	0.6	0.2	10	0.07	ns	0.4	0.3	0.3

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart
Table 5d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 33 entries in the Texas Advanced Chip Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
AORTX09037-1W/Y	TXCH	2.1	1.1	1.0	4.0	1.0	4.8	5.0	4.0	4.4	3.9	5	0	3	48
NDTX1244-3W/Y	TXCH	1.9	1.4	1.1	3.7	1.0	5.0	5.0	5.0	4.5	3.5	10	0	3	0
NDTX13280CB-3W	EGSS19	1.0	1.5	1.2	4.0	1.0	5.0	5.0	5.0	5.0	4.8	0	3	0	8
NDTX14362AB-1W	NCPT19 Tier 1	1.0	1.0	1.4	3.8	1.0	5.0	5.0	4.9	5.0	4.1	0	0	13	3
NDTX12203AB-1W	TXCH	1.0	1.1	1.0	3.8	1.0	5.0	5.0	5.0	4.4	4.1	0	0	5	5
TX14668-3WZC	TXCH	1.0	1.5	1.0	3.9	1.0	5.0	5.0	5.0	4.8	4.3	3	0	0	3
Atlantic Dal	TXCH	1.0	1.5	2.4	3.6	1.0	5.0	5.0	4.5	4.5	4.8	0	0	3	55
NDTX1444-5W	TXCH	1.0	1.5	1.0	4.0	1.0	5.0	5.0	4.5	4.4	4.3	0	0	3	3
COTX13231-1W	TXCH	1.0	1.6	1.1	4.0	1.0	5.0	5.0	5.0	4.5	4.0	0	0	5	8
TX12484-2WZC	TXCH	1.0	2.2	1.0	4.0	1.0	5.0	5.0	5.0	5.0	4.5	0	0	8	3
Atlantic	WR19	1.0	1.6	3.0	3.8	1.0	5.0	5.0	5.0	4.5	4.5	3	0	5	53
NDTX1482YB-1W	TXCH	1.0	1.3	1.0	4.0	1.0	5.0	5.0	4.2	4.4	4.0	0	5	0	5
ATX13134-3W/Y	EGSS19	2.3	1.0	1.0	4.0	1.0	5.0	5.0	5.0	4.6	4.6	0	0	0	28
NDTX13315CB-1W	TXCH	1.0	1.5	1.0	2.5	1.0	5.0	5.0	4.5	4.8	4.0	0	0	5	5
AORTX09037-5W/Y	TXCH	1.4	1.0	1.0	4.0	1.0	5.0	5.0	4.8	4.8	4.8	0	0	0	8
COTX13231-4W	TXCH	1.0	1.9	1.3	4.0	1.0	5.0	5.0	4.1	4.5	4.3	5	0	8	5
NDTX1246-5W/Y	NCPT19 Tier 2	2.2	1.6	1.6	4.0	1.0	5.0	5.0	4.5	5.0	4.9	0	3	3	10
COTX15425-1Y/Y	TXCH	3.0	1.5	1.5	3.9	1.0	5.0	5.0	5.0	4.0	4.0	0	0	0	10
NDTX1432Y-2Y/Y	TXCH	2.3	1.2	1.0	3.8	1.0	5.0	5.0	5.0	5.0	4.2	0	0	0	0
AORTX09037-4W/Y	TXCH	1.6	1.0	1.0	4.0	1.0	5.0	5.0	5.0	4.4	4.5	0	0	3	0
COTX13231-5W	TXCH	1.0	1.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
Snowden	WR19	1.0	1.3	2.8	3.5	1.0	4.3	5.0	5.0	5.0	4.8	3	5	13	3
AORTX09033-11W	EGSS19	1.0	1.3	1.0	4.0	1.0	5.0	5.0	5.0	5.0	4.3	0	0	0	0
ATTX10389-1W	TXCH	1.0	1.6	1.5	4.0	1.0	5.0	5.0	4.5	5.0	4.5	0	5	0	10
COTX12235-2W	TXCH	1.0	1.0	1.0	4.0	1.0	5.0	5.0	5.0	4.8	4.4	3	0	0	0
NDTX113030C-3W	TXCH	1.0	1.5	1.4	4.0	1.0	4.8	5.0	5.0	4.8	3.8	3	3	3	8
COTX13230-1W	TXCH	1.0	1.0	1.3	4.0	1.0	5.0	5.0	5.0	4.4	4.0	0	0	0	3
ATTX10333-1W/Y	TXCH	2.2	1.3	1.0	4.0	1.0	5.0	5.0	5.0	4.8	4.5	0	0	3	0
TX12484-3WZC	TXCH	1.0	1.8	1.0	4.1	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	3
COTX15345-1Y/Y	TXCH	3.0	2.1	1.5	4.0	1.0	4.8	5.0	5.0	4.5	4.4	8	0	3	0
NDTX12135-1W	NCPT19 Tier 1	1.0	1.3	1.5	4.0	1.0	5.0	5.0	5.0	5.0	4.8	0	0	0	18
COTX12428-1W	TXCH	1.0	1.1	1.0	4.0	1.0	4.9	5.0	5.0	4.5	4.4	5	0	0	3
NDTX1488-1W/Y	TXCH	2.0	1.5	2.3	4.0	1.0	5.0	5.0	4.8	4.8	4.0	0	0	5	0
Average		1.4	1.4	1.3	3.9	1.0	5.0	5.0	4.8	4.7	4.3	1.4	1	3	9
L.S.D. (.05)		0.1	0.2	0.2	0.0	0.3	0.2	0.0	0.4	0.4	0.3	ns	ns	6.0	10.5

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart Notes and general rating for all reps of 33 entries in the Texas Advanced Chip Selection Trial grown near Dalhart, Texas-2019.
Table 5e.

Variety or Selection	Trial	Notes Grading	General Rating Grading
AORTX09037-1W/Y	TXCH	small	4, 4, 4.2, 4
NDTX1244-3W/Y	TXCH	high tuber number++	3.6, 3.6, 3.6, 3.8
NDTX13280CB-3W	EGSS19	smooth skin, small, mixed flesh color+	4.2, 3.8, 4.2, 4.2
NDTX14362AB-1W	NCPT19 Tier 1	small, high tuber number, nice, heat sprouts, very light yellow flesh	4.6, 4.4, 4.6, 4.6
NDTX12203AB-1W	TXCH	large tubers+, high tuber number, BOT, rough skin	4, 4.4, 4.6, 4.4
TX14668-3WZC	TXCH	flat	4.4, 4.5, 3.8, 3.8
Atlantic Dal	TXCH	attached stolons, flat, ugly skin, drop	4.5, 4.4, 4.2, 4.2
NDTX1444-5W	TXCH	uniform, nice size+, medium size, small, uniform, nice skin, uniform	3.8, 4.2, 3.8, 4
COTX13231-1W	TXCH	uniform+, nice , mixed flesh, small, uniform	4.3, 4.6, 4.2, 4
TX12484-2WZC	TXCH		3.8, 3.7, 3.8, 3.8
Atlantic	WR19	buff skin, pointed, nice skin	4.5, 3.8, 4.3, 4.3
NDTX1482YB-1W	TXCH	dirty look, large tubers+, high tuber number	3.7, 3.7, 4, 4.4
ATX13134-3W/Y	EGSS19	large tubers+, severe scab	4, 4, 4.2, 4.2
NDTX13315CB-1W	TXCH	small++, uniform+, nice shape	3.8, 3.8, ,
AORTX09037-5W/Y	TXCH	flat, angular tubers+, bad shape	4, 4.4, 4, 3.7
COTX13231-4W	TXCH		4, 4.2, 3.8, 4.2
NDTX1246-5W/Y	NCPT19 Tier 2	large tubers+, dirty look, angular tubers	4, 3.8, 3.6, 3.8
COTX15425-1Y/Y	TXCH	buff skin	3.6, 3.8, ,
NDTX1432Y-2Y/Y	TXCH	large tubers, dirty look, nice	3.7, 3.8, 4.4,
AORTX09037-4W/Y	TXCH	angular tubers+++, flat, heat sprouts, drop, large tubers, attached stolons, ugly shape	3.6, 4, 3.6, 3.7
COTX13231-5W	TXCH	angular tubers, large tubers, high tuber number, bad shape	3.6, 3.6, 3.8, 3.8
Snowden	WR19	flat, BOT, beautiful skin+	3.7, 3.6, 3.8, 3.8
AORTX09033-11W	EGSS19	angular tubers, large tubers	3.6, 3.7, 3.7, 3.8
ATTX10389-1W	TXCH		3.8, 3.7, 3.8, 3.7
COTX12235-2W	TXCH	large tubers++, uniform+++, nice, BOT	3.8, 3.7, 3.8, 3.8
NDTX113030C-3W	TXCH	pointed, pear shape, large tubers+, high tuber number	4, 3.6, 4, 3.6
COTX13230-1W	TXCH	dirty look, high tuber number, nice skin	3.7, 3.7, 3.8, 3.8
ATTX10333-1W/Y	TXCH		3.6, 3.8, 3.8,
TX12484-3WZC	TXCH	pinkish skin+, angular tubers+	3.6, 4, 4.3, 3.8
COTX15345-1Y/Y	TXCH	oval, uniform, nice, beautiful skin, nice+	3.6, 3.6, 3.6, 3.5
NDTX12135-1W	NCPT19 Tier 1	large tubers+, uniform	3.8, 3.7, 3.6, 3.7
COTX12428-1W	TXCH	attached stolons, buff skin, uniform, large tubers+	3.8, 3.6, 3.6, 3.6
NDTX1488-1W/Y	TXCH	attached stolons, angular tubers	3.4, 4, ,

Dalhart Specific gravity, percent solids, chip color rating, good chip, bad chip, percentage vascular discoloration, bruise, stem end discoloration, apical bruise notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 33 entries in the Texas Advanced Chip Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Gravity	% Solids	Chip Rating ¹	Chip Color ²	% Good Chip	% Bad Chip	% Vas	% Bruise	% Stem	% Apical Bruise	Notes ³	% Zebra Chip Grading	% Zebra Chip Chipping	6 Weeks Storage Chip Rating	Reconditioning Chip Rating
AORTX09037-1W/Y	TXCH	1.064	13.9	2.0	2.9	68	32	0	22	3	0	1 scab ,1 bruise, 1 scab ,5 bruise, 1 bs ,1 se1 ,2 bruise, 1 bruise	0	0	0	0
NDTX1244-3W/Y	TXCH	1.066	14.2	1.2	2.3	93	8	5	3	0	0	nice , , 2 vas , 1 bruise	0	0	0	0
NDTX13280CB-3W	EGSS19	1.068	14.6	1.5	1.1	72	28	10	13	5	0	1 se1 ,1 bruise, 1 bruise ,1 se1 ,2 bruise ,3 vas , 1 bruise ,1 vas	0	0	0	0
NDTX14362AB-1W	NCPT19 Tier 1	1.066	14.3	1.1	1.1	94	6	6	0	0	0	nice , , 2 vas , nice	0	0	0	0
NDTX12203AB-1W	TXCH	1.069	14.8	1.4	1.1	82	18	16	0	0	0	2 vas , 4 vas , 1 vas , 1 gh	0	0	0	0
TX14668-3WZC	TXCH	1.068	14.6	1.5	1.2	70	30	10	10	0	0	1 vas ,1 bruise , 1 ihh ,1 gh , 1 vas ,1 bruise, 3 vas ,3 bruise	0	0	0	0
Atlantic Dal	TXCH	1.070	15.0	2.3	1.1	60	40	5	13	8	0	2 vas ,1 bruise ,1 ihh ,3 ihh ,1 bruise , 3 bruise , 3 se2 ,2 ihh	0	0	0	0
NDTX1444-5W	TXCH	1.067	14.5	1.2	1.0	84	16	0	2	8	0	2 scab , 1 se1 , 1 gh ,1 se1 ,1 se1 ,1 bruise	0	0	0	0
COTX13231-1W	TXCH	1.063	13.7	1.5	1.1	70	30	3	15	10	0	3 se2 ,1 vas ,1 bruise ,1 se1 ,3 bruise, 2 bruise ,1 ihh	0	0	0	0
TX12484-2WZC	TXCH	1.068	14.7	1.5	1.0	68	32	25	5	3	0	, 4 vas ,2 bruise , 1 se2 ,1 vas , 6 vas	0	0	0	0
Atlantic	WR19	1.067	14.5	1.6	1.0	65	35	0	18	5	0	3 bruise , 2 se2 ,2 scab ,1 bruise, 2 bruise ,2 ihh , 1 bruise ,1 ihh	0	0	0	0
NDTX1482YB-1W	TXCH	1.066	14.3	1.2	1.1	86	14	0	9	5	0	nice , 1 bruise , 2 se1 , 2 bruise	0	0	0	0
ATX13134-3W/Y	EGSS19	1.074	15.7	1.6	2.9	59	41	11	5	0	0	1 vas ,1 ibs ,1 ihh ,6 ihh ,2 bruise, 1 bruise, 3 vas	0	0	0	0
NDTX13315CB-1W	TXCH	1.070	15.0	2.3	1.0	63	37	6	21	5	0	1 vas ,2 bruise, 2 bruise ,1 se1 ,1 ihh ,	0	0	0	0
AORTX09037-5W/Y	TXCH	1.071	15.2	1.2	1.6	83	18	8	10	0	0	3 vas , 3 bruise , , 1 bruise	3	0	0	0
COTX13231-4W	TXCH	1.061	13.4	2.1	1.1	51	49	7	30	7	0	2 se2 ,2 bruise ,1 ihh ,1 scab ,3 bruise, 4 bruise ,1 se2 , 3 vas ,3 bruise	0	0	0	0
NDTX1246-5W/Y	NCPT19 Tier 2	1.063	13.7	2.3	3.0	70	30	0	3	3	0	2 scab ,1 se1 , , 4 ibs , 1 bruise ,1 bs	0	0	0	0
COTX15425-1Y/Y	TXCH	1.058	12.9	2.0	3.0	55	45	35	0	0	0	3 vas ,1 dry rot , 1 gh ,4 vas , ,	0	0	0	0
NDTX1432Y-2Y/Y	TXCH	1.055	12.3	2.3	3.0	41	59	23	19	17	0	3 se2 , 3 bruise ,4 vas ,1 se2 ,2 vas ,1 se2 ,2 bruise,	0	0	0	0
AORTX09037-4W/Y	TXCH	1.069	14.9	1.2	1.3	85	15	13	0	3	0	2 vas , 3 vas , nice , 1 vas ,	0	0	0	0
COTX13231-5W	TXCH	1.060	13.2	1.5	1.1	85	15	3	5	7	0	2 se1 , 1 se1 , 2 bruise ,1 vas ,	0	0	0	0
Snowden	WR19	1.066	14.4	1.4	1.0	84	16	8	0	3	0	, 1 ihh ,1 se2 ,1 gh ,1 vas ,nice, 2 vas	0	0	0	0
AORTX09033-11W	EGSS19	1.080	16.8	1.3	1.1	85	15	8	5	0	0	nice , 1 vas , 2 bruise ,1 vas , 1 bruise ,1 bs	0	0	0	0
ATX10389-1W	TXCH	1.060	13.3	1.8	1.1	69	31	3	29	0	0	, 2 bruise ,1 vas ,2 bruise , 7 bruise	0	0	0	0
COTX12235-2W	TXCH	1.065	14.1	1.4	1.1	85	15	2	10	0	3	1 se1 ,1 bruise , 2 bruise ,1 bruise ,1 vas	0	0	0	0
NDTX113030C-3W	TXCH	1.075	15.9	1.3	1.1	79	21	0	14	0	0	, 1 bruise ,3 ihh , nice , 5 bruise	0	0	0	0
COTX13230-1W	TXCH	1.065	14.2	1.5	1.1	83	17	0	7	3	0	, 1 bruise ,1 se1 ,1 bruise ,2 vas , 2 bruise	3	0	0	0
ATX10333-1W/Y	TXCH	1.085	17.6	1.4	2.2	81	19	13	0	3	0	2 vas , 1 se2 ,1 ihh , 2 vas ,	0	0	0	0
TX12484-3WZC	TXCH	1.064	13.9	1.7	1.0	70	30	0	8	18	0	1 se1 ,2 bruise , 2 se1 ,1 bruise , 1 ihh ,1 se1 , 3 se1 ,1 ihh	0	0	0	0
COTX15345-1Y/Y	TXCH	1.063	13.8	1.8	3.0	63	38	10	10	8	0	1 bruise , 2 vas ,1 bruise , 2 vas ,2 ihh , 3 se2 ,2 bruise ,2 ihh	0	0	0	0
NDTX12135-1W	NCPT19 Tier 1	1.072	15.4	1.3	1.1	85	15	0	16	3	0	1 bruise , 1 bruise , 1 bruise , 1 ihh ,1 se1 ,1 bruise	0	0	0	0
COTX12428-1W	TXCH	1.066	14.3	1.7	1.1	70	30	8	10	0	0	2 ihh ,2 bruise , 1 ihh ,3 bruise ,1 ihh , 3 vas	0	0	0	0
NDTX1488-1W/Y	TXCH	1.070	14.9	1.7	3.0	69	31	5	21	0	0	2 bruise ,2 bruise ,1 vas ,1 ihh ,	0	0	0	0
Average		1.067	14.5	1.6	1.6	73	27	7	10	4	0		0	0	0	0
L.S.D. (.05)		0.007	1.288	0.5	0.2	19	19	0	13	ns	ns		ns	0.000	0	0

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=Light to 5=Dakota Chip quality (level of browning including defects) Color using Snack Food Association Color Standards for Potato Chips 2008

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Variety or Selection	Trial	Chipping 6 Weeks of Storage			Chipping Recondition for 2 Weeks		
		Chip Rating ¹	Chip Color ²	Notes ³	Chip Rating1	Chip Color2	Notes3
AORTX09037-1W/Y	TXCH	2.6	3.0	, NICE, ,	2.1	3.0	, , ,
NDTX1244-3W/Y	TXCH	3.0	3.0	, , ,	1.9	3.0	, , ,
NDTX13280CB-3W	EGSS19	4.6	2.5	, , ,	3.9	1.8	, , ,
NDTX14362AB-1W	NCPT19 Tier 1	3.2	2.5	, , ,	3.3	2.0	, , ,
NDTX12203AB-1W	TXCH	3.8	2.6	, , ,	3.8	2.0	, , ,
TX14668-3WZC	TXCH	3.4	1.9	, , ,	3.1	1.0	, , ,
Atlantic Dal	TXCH			, , ,			, , ,
NDTX1444-5W	TXCH	2.5	1.2	, , ,	2.1	1.1	, , ,
COTX13231-1W	TXCH	4.0	2.0	, , ,	3.2	1.3	, , ,
TX12484-2WZC	TXCH	3.3	1.4	, , ,	2.0	1.0	, , ,
Atlantic	WR19	4.0	2.5	, , ,	3.7	1.5	, , ,
NDTX1482YB-1W	TXCH	2.8	1.1	BC, BC, BC,	2.4	1.0	, , ,
ATX13134-3W/Y	EGSS19	2.4	3.0	, , ,	2.3	3.0	, , ,
NDTX13315CB-1W	TXCH	4.2	2.1	, BC, ,	3.9	1.5	, , ,
AORTX09037-5W/Y	TXCH	4.1	2.9	, , ,	4.3	2.5	Drop, Drop, Drop, Drop
COTX13231-4W	TXCH	3.6	1.9	, , ,	4.0	1.4	, , ,
NDTX1246-5W/Y	NCPT19 Tier 2	2.4	3.0	, NICE, , NICE	2.1	3.0	, , ,
COTX15425-1Y/Y	TXCH	6.0	3.0	DROP, DROP, ,	5.0	3.0	Drop, Drop, ,
NDTX1432Y-2Y/Y	TXCH	4.3	3.0	, , ,	4.8	3.0	Drop, Drop, Drop,
AORTX09037-4W/Y	TXCH	4.3	2.9	, , ,	4.1	3.0	Drop, Drop, Drop, Drop
COTX13231-5W	TXCH	4.3	3.0	, BC, BC, BC	3.1	1.3	, , ,
Snowden	WR19	2.9	1.8	, , ,	1.4	1.0	, , ,
AORTX09033-11W	EGSS19	3.5	1.8	, , ,	2.7	1.3	, , ,
ATX10389-1W	TXCH	2.8	1.7	, , , Drop rep	2.5	1.1	, , ,
COTX12235-2W	TXCH	1.8	1.1	BOT, NICE, , NICE	1.5	1.0	, , BOT, BOT
NDTX113030C-3W	TXCH	2.5	1.4	, , ,	1.5	1.3	, , , Nice
COTX13230-1W	TXCH	2.6	1.1	BC, , ,	2.2	1.2	, , ,
ATX10333-1W/Y	TXCH	3.0	2.9	, , ,	2.1	3.0	, , ,
TX12484-3WZC	TXCH	4.1	2.0	, , ,	2.5	1.0	, Nice, Nice,
COTX15345-1Y/Y	TXCH	3.6	3.0	, , ,	3.7	3.0	, , ,
NDTX12135-1W	NCPT19 Tier 1	3.1	1.4	BC, , ,	2.5	1.1	, , ,
COTX12428-1W	TXCH	3.4	1.8	BC, , ,	2.1	1.1	, , ,
NDTX1488-1W/Y	TXCH	4.5	3.0	, , ,	4.8	4.8	Drop, Drop, ,
Average		3.4	2.2		3	2	
L.S.D. (.05)							

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹Chip Quality Rating 1=Light 6 =Dark

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

2019 4 Hill Chip Selections Trial, Dalhart

The trial consisted of 181 entries. The following eleven clones (COTX16013-5W, COTX16054-1Ru, COTX16078-2W, COTX16078-4W, NDTX14247CAB-1W, NDTX14247CAB-2W, NDTX14252B-2W, NDTX14263BC-3W, TX17734-2W/Y, TX17759-5W, and TX17846-1W) will be advanced in 2020 (Table 6).

Dalhart
Table 6

Inventory weight of 11 entries to be advanced
from the 2019 4 hill Chip Selection Trial
grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Inventory Weight
COTX16013-5W	4HILL19CHIP019	
COTX16054-1Ru	4HILL19CHIP033	
COTX16078-2W	4HILL19CHIP041	
COTX16078-4W	4HILL19CHIP043	
NDTX14247CAB-1W	4HILL19CHIP079	
NDTX14247CAB-2W	4HILL19CHIP080	
NDTX14252B-2W	4HILL19CHIP088	
NDTX14263BC-3W	4HILL19CHIP102	
TX17734-2W/Y	4HILL19CHIP124	
TX17759-5W	4HILL19CHIP154	
TX17846-1W	4HILL19CHIP215	

Texas Advanced Russet Selection Trial, Dalhart

The trial consisted of nineteen entries including the check variety Russet Norkotah.

Results: (Dalhart Tables 7a, 7b, 7c, 7d, and 7e)

- ATX13018-2Ru had a high general rating and a best of trial designation, while ATTX10007-1Ru, COTX09022-3RuRE/Y, TX13590-9Ru, COTX10080-2Ru, Russet Norkotah296, ATX13018-2Ru, Russet Norkotah223, Russet Norkotah278, and COTX13029-2Ru/Y also had high general ratings (Tables 7a and 7e).
- Russet Norkotah dal had the highest total and marketable yield, while ATTX10007-1Ru had the highest yield of over 10 oz. tubers (Table 7a).
- ATTX10378-3Ru/Y had the highest yield of less than 4 oz. tubers, while Russet Burbank Dal had the highest yield of culls/No.2 tubers (Table 7a).
- ATX13018-2Ru and Russet Norkotah278 had the highest percentage of marketable yield, while ATTX10007-1Ru had the highest percentage of over 10 oz. tubers (Table 7b).
- Dal17001RuRub and Dal17001RuRua had the highest specific gravity (Table 7b).
- COTX09022-3RuRE/Y, TX13590-9Ru, COTX10080-2Ru, Russet Norkotah296, COTX14132-1Ru, Russet Burbank Dal, Dal17001RuRua, were the latest in maturity, while Russet Norkotah, Russet Norkotah223, Russet Norkotah278, and Russet Norkotah Dal were the earliest in maturity (Table 7c).
- ATTX10007-1Ru had the highest percentages of vascular discoloration, while TX13590-9Ru had a high percentage of internal brown spot (Table 7d).

Comments on entries:

- | | | | |
|----------------------|--------|--------|---|
| • Russet Norkotah | Long | Russet | good shape+, some misshapen+, many eyes, impressive high tuber number, nice skin color+, FC=1.0 |
| • COTX15271-1Ru | Oblong | Russet | pointed+, short, ZC 20%, angular+, bad shape, high tuber number+, FC=1.0 |
| • ATTX10007-1Ru | Long | Russet | very light skin, blocky, FC=1.0 |
| • COTX09022-3RuRE/Y | Oval | Russet | round to oval+, unique pattern+, strong, short, FC=3.6 |
| • TX13590-9Ru | Oval | Russet | a little short+, blocky+, nice, very nice, FC=1.1 |
| • COTX10080-2Ru | Oblong | Russet | blocky+, very nice+, medium size, FC=1.1 |
| • Russet Norkotah296 | Long | Russet | long tubers++, skinny++, smaller profile, curved tubers, FC=1.0 |

- ATX13018-2Ru Oblong Russet blocky+++ , parent, nice, golden russet+, very nice, BOT, FC=1.0
- Russet Norkotah223 Long Russet nice shape and skin, FC=1.0
- Russet Norkotah278 Long Russet nice shape and skin+++ , large, many tubers, a little pointed, FC=1.0
- COTX14132-1Ru Oblong Russet dark healing, ZC 10%, large, angular+, high tuber number ++, DROP, FC=1.2
- ATTX10378-3Ru/Y Oblong Russet golden skin, nice shape, nice, short, FC=3.5
- Russet Norkotah Dal Long Russet very nice, excellent shape, good skin, FC=1.0
- ATTX10008-1Ru Oblong Russet very large, pointed+, nice shape and skin, few tubers, bad rep, DROP? FC=1.0
- Russet Burbank Dal Long Russet knobs++, bad shape++, high tuber number, skinny, misshapen+, ugly, soft rotten stolon ends, many eyes, pointed, FC=1.0
- COTX13029-2Ru/Y Round Russet different, round, rocky, very intense yellow flesh, parent (cross with Yellow Rose), rocky russet, FC=4.5
- Dal17001RuRub Oblong Russet nice shape, nice skin+, FC=1.0
- Dal17001RuRua Oblong Russet nice shape, nice skin, medium, FC=1.0
- COTX14016-1Ru Oblong Russet short+, blocky, nice, bulky, few tubers, FC=1.5

¹FC=Flesh color intensity, 1=very light to 4=very dark

Summary:

ATX13018-2Ru, ATTX10007-1Ru, COTX09022-3RuRE/Y, TX13590-9Ru, COTX10080-2Ru, Russet Norkotah296, ATX13018-2Ru, Russet Norkotah223, Russet Norkotah278, and COTX13029-2Ru/Y were the best entries in this trial based on a combination of factors.

Disposition:

ATTX10007-1Ru	Keep
ATTX10008-1Ru	DROP
ATTX10378-3Ru/Y	Keep
ATX13018-2Ru	Keep, enter into TC
COTX09022-3RuRE/Y	Keep
COTX10080-2Ru	Keep
COTX13029-2Ru/Y	Keep, enter into TC
COTX14016-1Ru	DROP
COTX14132-1Ru	DROP

COTX15271-1Ru	Keep
Dal17001RuRua	Keep, enter into TC
Dal17001RuRub	DROP
Russet Norkotah223	Keep
Russet Norkotah278	Keep
Russet Norkotah296	Keep
TX13590-9Ru	Keep, move to SW

Dalhart
Table 7a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 19 entries in the Texas Advanced Russet Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz					10-18 oz
Russet Norkotah	WR19	636.6	366.6	111.6	160.5	94.5	0.0	180.4	89.6	4.2
COTX15271-1Ru	TXRU	595.7	247.9	130.1	77.7	40.2	7.5	252.0	88.3	3.7
ATTX10007-1Ru	TXRU	574.2	274.5	83.3	70.5	120.8	96.1	134.5	69.1	4.0
COTX09022-3RuRE/Y	TXRU	508.8	225.0	121.0	86.5	17.5	0.0	270.1	13.7	4.2
TX13590-9Ru	TXRU	508.6	288.5	125.8	122.5	40.2	4.9	191.8	23.3	4.0
COTX10080-2Ru	TXRU	503.5	240.8	100.1	98.6	42.1	0.0	242.5	20.2	4.2
Russet Norkotah296	TXRU	498.9	227.0	97.6	99.4	30.0	12.1	182.3	77.4	4.0
ATX13018-2Ru	TXRU	497.0	322.5	132.9	108.2	81.3	33.6	114.5	26.4	4.2
Russet Norkotah223	TXRU	480.4	280.5	113.0	143.7	23.8	12.4	141.4	46.2	4.2
Russet Norkotah278	TXRU	480.2	291.9	96.3	121.3	74.4	0.0	147.1	41.2	4.3
COTX14132-1Ru	TXRU	437.4	227.0	81.1	93.7	52.2	0.0	148.4	62.1	3.7
ATTX10378-3Ru/Y	TXRU	426.1	153.9	98.3	53.9	1.7	0.0	256.8	15.4	3.8
Russet Norkotah Dal	TXRU	395.2	188.9	116.6	41.9	30.4	0.0	154.3	52.0	3.9
ATTX10008-1Ru	TXRU	386.0	178.0	71.4	77.3	29.3	25.3	149.4	33.3	3.6
Russet Burbank Dal	TXRU	382.2	152.6	96.2	56.4	0.0	0.0	67.6	162.0	3.3
COTX13029-2Ru/Y	TXRU	342.5	192.9	105.5	63.4	24.0	0.0	143.2	6.4	4.0
Dal17001RuRub	TXRU	338.4	150.4	76.0	55.1	19.4	0.0	165.9	22.1	3.6
Dal17001RuRua	TXRU	300.6	143.1	67.7	59.8	15.6	0.0	125.1	32.5	3.6
COTX14016-1Ru	TXRU	266.3	157.6	80.5	67.0	10.1	0.0	103.2	5.5	3.5
Average		450.5	226.8	100.3	87.2	39.3	10.1	166.9	46.7	3.9
L.S.D. (.05)		117.9	76.5	ns	ns	31.9	15.3	7.6	32.7	0.3

¹ 1=very poor to 5= excellent

Dalhart
Table 7b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 19 entries in the Texas Advanced Russet Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Russet Norkotah	WR19	55.9	18.8	23.2	13.9	0.0	30.0	14.1	1.058	12.9	Long	Russet
COTX15271-1Ru	TXRU	41.4	21.7	12.7	7.0	1.2	42.7	14.6	1.071	15.2	Oblong	Russet
ATTX10007-1Ru	TXRU	47.8	14.5	12.3	21.0	16.7	23.4	12.0	1.065	14.0	Long	Russet
COTX09022-3RuRE/Y	TXRU	45.4	24.5	17.7	3.1	0.0	52.2	2.5	1.077	16.2	Oval	Russet
TX13590-9Ru	TXRU	56.6	24.2	25.0	7.5	1.0	37.7	4.6	1.074	15.7	Oval	Russet
COTX10080-2Ru	TXRU	47.7	20.0	19.5	8.2	0.0	48.2	4.1	1.062	13.7	Oblong	Russet
Russet Norkotah296	TXRU	45.6	19.9	19.7	6.0	2.0	36.7	15.6	1.061	13.4	Long	Russet
ATX13018-2Ru	TXRU	66.5	28.8	21.1	16.6	7.8	19.8	5.9	1.060	13.2	Oblong	Russet
Russet Norkotah223	TXRU	58.4	23.5	29.9	5.0	2.6	29.4	9.6	1.056	12.6	Long	Russet
Russet Norkotah278	TXRU	60.6	20.3	25.1	15.2	0.0	31.0	8.5	1.064	14.0	Long	Russet
COTX14132-1Ru	TXRU	51.0	18.7	20.8	11.4	0.0	34.6	14.4	1.075	15.9	Oblong	Russet
ATTX10378-3Ru/Y	TXRU	36.1	22.9	12.7	0.4	0.0	60.2	3.7	1.066	14.3	Oblong	Russet
Russet Norkotah Dal	TXRU	47.5	29.8	10.1	7.6	0.0	39.8	12.7	1.057	12.7	Long	Russet
ATTX10008-1Ru	TXRU	50.1	19.6	22.1	8.4	5.0	36.6	8.3	1.062	13.7	Oblong	Russet
Russet Burbank Dal	TXRU	39.7	26.5	13.2	0.0	0.0	18.1	42.2	1.060	13.2	Long	Russet
COTX13029-2Ru/Y	TXRU	56.0	29.0	20.0	7.0	0.0	42.1	2.0	1.076	16.0	Round	Russet
Dal17001RuRub	TXRU	43.9	22.4	15.9	5.5	0.0	49.3	6.8	1.081	16.9	Oblong	Russet
Dal17001RuRua	TXRU	47.6	22.3	20.0	5.3	0.0	41.4	11.0	1.079	16.6	Oblong	Russet
COTX14016-1Ru	TXRU	59.2	30.4	25.2	3.5	0.0	38.8	2.0	1.075	15.8	Oblong	Russet
Average		50.4	23.0	19.3	8.0	1.9	37.5	10.2	1.067	14.5		
L.S.D. (.05)		9.5	ns	ns	5.4	3.1	10.3	5.4	0.004	0.7		

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Table 7c.

Average number of tubers per plant, tuber weight, percent stand 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 19 entries in the Texas Advanced Russet Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
Russet Norkotah	WR19	8.4	5.6	100	1.8	3.8	3.4	3.8	50	2.07	1.07	11.0	5.3	5.0
COTX15271-1Ru	TXRU	9.4	4.6	100	1.9	3.9	4.7	4.0	8	1.72	1.11	10.0	5.9	5.3
ATTX10007-1Ru	TXRU	5.5	7.7	100	1.5	3.5	4.0	3.6	10	2.04	1.08	11.2	5.5	5.1
COTX09022-3RuRE/Y	TXRU	12.8	4.1	75	1.7	3.2	4.8	3.7	3	1.33	1.18	8.5	6.4	5.4
TX13590-9Ru	TXRU	7.4	5.2	98	1.9	3.9	4.9	3.8	0	1.51	1.08	9.4	6.3	5.8
COTX10080-2Ru	TXRU	8.4	4.5	98	1.8	3.2	5.0	3.5	0	1.73	1.11	9.9	5.7	5.2
Russet Norkotah296	TXRU	7.3	5.0	100	1.8	3.8	4.2	3.7	14	2.27	1.11	11.6	5.1	4.6
ATX13018-2Ru	TXRU	6.8	5.6	98	1.9	3.6	3.8	3.6	19	1.81	1.10	10.7	5.9	5.4
Russet Norkotah223	TXRU	7.1	4.9	100	2.0	3.7	3.5	3.6	50	2.20	1.09	11.0	5.0	4.6
Russet Norkotah278	TXRU	6.0	5.8	100	1.6	3.7	3.6	3.8	46	1.95	1.06	11.0	5.6	5.3
COTX14132-1Ru	TXRU	7.3	5.7	78	1.6	3.2	4.9	3.6	3	1.76	1.16	10.6	6.0	5.2
ATTX10378-3Ru/Y	TXRU	9.1	3.4	100	1.9	3.7	3.8	3.7	23	1.92	1.10	10.2	5.3	4.8
Russet Norkotah Dal	TXRU	6.9	4.2	100	1.8	3.8	3.3	3.7	63	2.17	1.07	10.9	5.0	4.7
ATTX10008-1Ru	TXRU	6.4	5.1	86	1.8	2.8	4.3	3.1	8	1.89	1.06	10.5	5.6	5.2
Russet Burbank Dal	TXRU	8.7	3.3	100	1.6	3.6	5.0	3.6	0	2.57	1.03	12.0	4.7	4.5
COTX13029-2Ru/Y	TXRU	13.0	4.2	46	1.8	1.6	4.5	2.7	5	1.04	1.13	7.0	6.7	6.0
Dal17001RuRub	TXRU	6.5	4.0	97	1.7	3.6	4.7	3.6	7	1.92	1.09	10.5	5.5	5.0
Dal17001RuRua	TXRU	6.2	4.7	76	1.7	3.1	4.8	3.6	3	1.91	1.11	10.8	5.7	5.1
COTX14016-1Ru	TXRU	7.7	4.5	56	2.1	1.8	4.5	3.0	8	1.64	1.06	9.4	5.7	5.4
Average		7.9	4.8	90	1.8	3.3	4.3	3.6	17	1.87	1.09	10.3	5.6	5.1
L.S.D. (.05)		1.2	1.2	10	ns	0.4	0.2	0.2	7	0.16	0.06	0.9	0.3	0.3

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

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Table 7d.

Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 19 entries in the Texas Advanced Russet Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
Russet Norkotah	WR19	1.0	5.0	4.5	3.8	4.4	5.0	5.0	5.0	4.0	5.0	15	0	5	0
COTX15271-1Ru	TXRU	1.0	4.3	4.0	4.1	3.9	4.7	5.0	5.0	4.3	5.0	3	0	0	0
ATTX10007-1Ru	TXRU	1.0	5.0	1.8	4.5	2.0	5.0	5.0	5.0	3.5	5.0	0	0	20	0
COTX09022-3RuRE/Y	TXRU	3.6	2.9	3.1	4.0	3.0	4.9	5.0	5.0	4.8	5.0	3	0	5	5
TX13590-9Ru	TXRU	1.1	4.1	3.8	4.0	4.0	5.0	5.0	5.0	4.8	5.0	0	0	5	23
COTX10080-2Ru	TXRU	1.1	4.3	4.0	4.0	4.0	5.0	5.0	5.0	4.8	5.0	5	0	15	0
Russet Norkotah296	TXRU	1.0	5.0	4.5	4.0	4.5	5.0	5.0	5.0	4.3	5.0	10	0	5	3
ATX13018-2Ru	TXRU	1.0	4.9	3.5	4.3	3.6	4.5	5.0	5.0	4.9	4.9	3	0	3	0
Russet Norkotah223	TXRU	1.0	5.0	4.5	3.8	4.5	5.0	5.0	5.0	4.8	5.0	10	0	0	10
Russet Norkotah278	TXRU	1.0	5.0	4.5	3.9	4.5	5.0	5.0	5.0	4.8	5.0	8	0	0	3
COTX14132-1Ru	TXRU	1.2	4.7	4.5	4.0	4.5	5.0	5.0	5.0	4.7	4.8	0	0	0	0
ATTX10378-3Ru/Y	TXRU	3.5	3.9	3.0	4.3	3.0	5.0	5.0	5.0	4.9	5.0	3	0	0	0
Russet Norkotah Dal	TXRU	1.0	5.0	4.5	3.8	4.5	5.0	5.0	5.0	4.5	5.0	3	0	8	0
ATTX10008-1Ru	TXRU	1.0	4.9	4.5	4.3	4.5	4.9	5.0	5.0	4.4	5.0	0	0	10	0
Russet Burbank Dal	TXRU	1.0	5.0	3.7	3.8	3.8	5.0	5.0	5.0	2.1	4.9	0	0	0	0
COTX13029-2Ru/Y	TXRU	4.5	1.5	4.4	3.8	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Dal17001RuRub	TXRU	1.0	4.4	4.0	4.3	3.9	5.0	5.0	5.0	4.6	5.0	0	0	0	3
Dal17001RuRua	TXRU	1.0	4.1	4.0	4.5	3.9	5.0	5.0	5.0	4.4	5.0	3	0	3	3
COTX14016-1Ru	TXRU	1.5	3.4	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	10
Average		1.5	4.3	3.9	4.1	3.9	4.9	5.0	5.0	4.4	5.0	3.3	0	4	3
L.S.D. (.05)		0.1	0.3	0.2	0.2	ns	ns			ns	ns	ns		ns	7.6

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 7e. Notes and general rating for all reps of 19 entries in the Texas Advanced Russet Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Notes Grading	General Rating Grading
Russet Norkotah	WR19	good shape+, some misshapen+, many eyes, impressive high tuber number, nice skin color+	3.6, 4.3, 4.4, 4.5
COTX15271-1Ru	TXRU	pointed+, short, ZC 20%, angular+, bad shape, high tuber number+	3.5, 3.8, 3.5, 3.8
ATTX10007-1Ru	TXRU	very light skin, blocky	4, , ,
COTX09022-3RuRE/Y	TXRU	round to oval+, unique pattern+, strong short	4, 3.8, 4.5, 4.5
TX13590-9Ru	TXRU	a little short+, blocky+, nice, very nice	3.7, 3.8, 4.2, 4.4
COTX10080-2Ru	TXRU	blocky+, very nice+, medium size	4.4, 4, 4.2, 4.2
Russet Norkotah296	TXRU	long tubers++, skinny++, smaller profile, curved tubers	3.8, 4, 4.2, 3.8
ATX13018-2Ru	TXRU	blocky+++, parent, nice, golden russet+, very nice, BOT	4, 4.2, 4.2, 4.2
Russet Norkotah223	TXRU	nice shape and skin	4.2, , ,
Russet Norkotah278	TXRU	nice shape and skin+++, large many tubers, a little pointed,	4, 4.4, 4.4, 4.3
COTX14132-1Ru	TXRU	dark healing++, DROP, ZC 10%, large, angular+, high tuber number	3.5, 3.8, 3.8, 3.8
ATTX10378-3Ru/Y	TXRU	golden skin, nice shape, nice, short	3.8, 3.8, 3.8, 3.6
Russet Norkotah Dal	TXRU	very nice, excellent shape, good skin	3.6, 4.3, 3.8, 3.8
ATTX10008-1Ru	TXRU	very large, DROP?, pointed+, nice shape and skin, few tubers, bad rep? knobs++, bad shape++, high tuber number, skinny, misshapen+, ugly, soft	3.5, 3.5, 3.8, 3.6
Russet Burbank Dal	TXRU	rotten stolon ends, many eyes, pointed	3.4, 3.4, 3.4, 3
COTX13029-2Ru/Y	TXRU	different, round, rocky, very intense yellow flesh, parent (cross with Yellow Rose), rocky russet,	4.2, 3.8, ,
Dal17001RuRub	TXRU	nice shape, nice skin+	3.8, 3.2, 3.7,
Dal17001RuRua	TXRU	nice shape, nice skin, medium	3.5, 3.6, 3.8,
COTX14016-1Ru	TXRU	short+, blocky, nice, bulky, few tubers	3.5, 3.5, ,

2019 4 Hill Russet Selections Trial, Dalhart

The trial consisted of 92 entries of which fourteen (ATX08322-1Ru, ATX13287-1Ru, ATX15008-1Ru, ATX15025-2Ru, ATX15097-2Ru, ATX15099-1Ru, COTX15123-1Ru, COTX15123-2Ru, COTX15123-3Ru, COTX15169-1Ru, COTX15169-2Ru, COTX16005-1Ru, COTX16209-1Ru, and COTX16217-2Ru) will be advanced in 2020 (Table 8).

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Table 8

Inventory weight of 14 entries to be advanced
from the 2019 4 hill Russet Selection Trial
grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Inventory Weight
ATX08322-1Ru	4Hill19Russ366	11.1
ATX13287-1Ru	4Hill19Russ373	10.9
ATX15008-1Ru	4Hill19Russ381	16.7
ATX15025-2Ru	4Hill19Russ383	15.1
ATX15097-2Ru	4Hill19Russ391	12.8
ATX15099-1Ru	4Hill19Russ392	6.8
COTX15123-1Ru	4Hill19Russ403	8.4
COTX15123-2Ru	4Hill19Russ404	9.3
COTX15123-3Ru	4Hill19Russ405	8.3
COTX15169-1Ru	4Hill19Russ408	12.5
COTX15169-2Ru	4Hill19Russ409	8.7
COTX16005-1Ru	4Hill19Russ429	12.6
COTX16209-1Ru	4Hill19Russ448	9.7
COTX16217-2Ru	4Hill19Russ450	6.5

Texas Advanced Red/Specialty Selection Trial, Dalhart

This trial consisted of twenty-five entries including the check variety Red LaSoda.

Results: (Dalhart Tables 9a, 9b, 9c, 9d, and 9e)

- ATX11549-1P/Y, Sierra Rose, and NDTX4784-7R had high general ratings and a best of trial designation, while NDTX059759-3RY/Y Pinto, TX14646-1W-R/YPinto, and Chieftain also had high general ratings (Tables 9a and 9e).
- ATTX11617-2R/Y had the highest total yield, and TX14646-1W-R/YPinto had the highest marketable and yield of over 10 oz. tubers, while Chieftain had the highest yield of 4-6 oz. tubers (Table 9a).
- ATTX11617-2R/Y had the highest yield of less than 4 oz. tubers, while ATTX10265-4R/Y had the highest yield of culls/No. 2 tubers (Table 9a).
- TX14646-1W-R/YPinto had the highest percentage marketable yield, while NDTX059759-3RY/Y Pinto had the highest percentage of 4-6 oz. tubers. NDTX1467C-1R had the highest percentage of less than 4 oz. tubers. Banana had the highest percentage of Culls/No. 2 tubers (Table 9b).
- ATTX98444s-16R/Y had the highest specific gravity (Table 9b).
- ATTX11617-2R/Y had the highest tubers per plant (Table 9c).
- Banana, ATTX11633-1RYPinto/Y, NDTX059759-3RY/Y Pinto, Red LaSoda Dal, Red LaSoda, and NDTX1467C-1R were the latest in maturity, while ATX11549-1P/Y, ATTX10265-4R/Y, and NDTX4784-7R were the earliest in maturity (Table 9c).
- Chieftain had the highest percentage of internal brownspot (Table 9d).

Comments on entries:

- | | | |
|---|---------------------|---|
| <ul style="list-style-type: none"> • ATX11586-2R/Y | <p>Oblong Red</p> | <p>small, nice intense flesh, smooth skin, oval to oblong, shiny skin, nice skin-flesh combination, pointed, FC=3.4</p> |
| <ul style="list-style-type: none"> • Banana | <p>Long White</p> | <p>fingerling, few tubers++, intense knobs+, terrible shape, FC=2.4</p> |

- PORTX03PG25-2R/R Long Red uniform size, uniform shape, prepare PVP dossier, fingerling, intense skin color, nice, FC=3.7
- ATX11549-1P/Y Round Purple nice, silver scurf+, uniform size and shape, large+, high tuber number, giant blue berries, high density of eyes at bud end, white lenticels, some rotten tubers, BOT, FC=3.4
- ATX11556-1P/Y Round Purple uniform size and shape++, small, almost black skin, Halloween potato, black plums, parent, chained tubers, knobs, blackberries, DROP, FC=3.2
- ATTX10265-4R/Y Round Red pear shape+, nonuniform shape, intense yellow flesh color, many knobs+, parent for flesh color, high tuber number, nice skin, chained tubers+, a little flat, pointed, very intense yellow flesh+, nice skin/flesh combination, DROP++, FC=4.4
- ATTX11633-1RYPinto/Y Round Red/Pinto compressed, native, deep eyes, pinto, mini LaSoda, skin pattern variation, small, FC=3.0
- NDTX059759-3RY/Y Pinto Round Red/Pinto smooth skin, flat, beautiful skin pattern+, prepare PVP dossier, flat, pink streaks 40%, FC=3.2
- Sierra Rose Round Red large tubers, high tuber number+, nice, variation in shape, silver scurf, scab, BOT, FC=3.0
- TX14646-1WR/YPinto Round Red/Pinto large, high tuber number+++, medium-large tubers, nice+, yellow-pink flesh++, large, parent: cross with Harlequin, FC=3.0

- ATTX11617-2R/Y Round Red high tuber number++, chained tubers++, heat sprouts, uniform size and shape, FC=2.9
- NDTX12248Y-1R Round Red dark red eyes, scab, Red LaSoda replacement, shallower eyes, similar skin color, nice, medium to large, parent, cross with smooth skin, silver scurf, FC=1.0
- NDTX4784-7R Round Red medium size, parent, cross with smooth skin, Red LaSoda replacement??, BOT, FC=1.0
- Red LaSoda Dal Round Red large, wild, deep eyes++++, red vascular discoloration, large, very high tuber number, FC=1.0
- Chieftain Round Red uniform size and shape, red eyes, some skin color variation, high tuber number+, parent for high yield and high tuber number, FC=1.0
- Red LaSoda Round Red deep eyes++++, nonuniform shape, many culls (knobs), large, very high tuber number, parent for tuber number and yield+ , FC=1.0
- COTX04050s-1P/P Round Purple attached stolons+, small, MIXED flesh color white and purple+, some rotten, white lenticels, parent, very uniform shape and size, FC=4.5
- ATTX98444s-16R/Y Round Red small++++, uniform size and shape, nice, 10% ZC, parent, FC=3.2
- NDTX1467C-1R Round Red silver scurf, small, uniform size, uniform shape, DROP, FC=1.0
- ATTX07230-4Yre/Y Round Yellow Red Eye impressive, high tuber number++, uniform size++, uniform shape++, unique skin pattern+, large, parent for high tuber

			number and yield, prepare for PVP, BOT++ FC=2.5
• COTX08039-1R/R	Oblong	Red	red flesh, brain flesh, some rotten, very dark skin, dislike appearance, uniform size, non-uniform flesh color, dotted flesh, high tuber number, ugly, red-purple skin, uneven skin color, parent, uneven pigment distribution in flesh, DROP+++ FC=4.0
• COTX10012-1Ryspl/Y	Round	Red Yellow Splash	intense yellow flesh, unique skin pattern, uniform size, uniform shape FC= 3.9
• COTX10118-4Wpe/Y	Round	White Purple Eye	nice, medium-small, purple eye shadow, smooth skin, unique skin color pattern FC=3.7
• COTX10138-15Wpe/Y	Round	White Purple Eye	uniform shape+, high tuber number, nice skin pattern, purple eye shadow+, uniform size FC=3.3
• NDTX092237C-2P/W	Oblong	Purple	white lenticels+, surprise white-purple flesh+++ , very large, large, strong, high tuber number, nice, cool FC=1.0

¹FC=Flesh color intensity, 1=very light to 4=very dark

Summary:

Fingerling

ATX11586-2R/Y had a higher yield than PORTX03PG25-2R/R

Red Yellow Flesh

ATX11549-1P/Y NDTX059759-3RY/Y Pinto, Sierra Rose, and TX14646-1W-R/YPinto had the highest general ratings.

Red White Flesh

NDTX4784-7R and Chieftain had the highest general ratings.

Small Potatoes

ATX98444s-16R/Y had acceptable yield and general appearance.

Disposition:

ATTX07230-4Yre/Y	Keep, enter into TC
ATTX10265-4R/Y	Keep, In TC – do not send to CO
ATTX11617-2R/Y	DROP
ATTX11633-1RYPinto/Y	Keep
ATTX98444s-16R/Y	Keep, promote and share in 2021
ATX11549-1P/Y	Keep, enter into TC
ATX11556-1P/Y	DROP
ATX11586-2R/Y	Keep
Banana	Keep
COTX04050s-1P/P	DROP, in TC make a decision
COTX08039-1R/R	DROP
COTX10012-1Ryspl/Y	Keep, produce minitubers in 2020
COTX10118-4Wpe/Y	Keep, transfer minitubers to CO in 2020
COTX10138-15Wpe/Y	Keep, transfer minitubers to CO in 2020
NDTX059759-3RY/Y Pinto	Keep
NDTX092237C-2P/W	Keep, produce minitubers in 2020
NDTX12248Y-1R	Keep
NDTX1467C-1R	DROP
NDTX4784-7R	Keep, promote/share in 2020
PORTX03PG25-2R/R	Keep move to WR
Sierra Rose	Keep
TX14646-1W-R/YPinto	Keep, enter into TC

Dalhart
Table 9a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 19 entries in the Texas Advanced Red/Specialty Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz					10-18 oz
ATX11586-2R/Y	Fing	369.0	102.2	83.4	18.8	0.0	0.0	252.6	14.3	3.8
Banana	Fing	61.7	5.0	5.0	0.0	0.0	0.0	41.0	15.7	1.8
PORTX03PG25-2R/R	Fing	225.3	32.6	32.6	0.0	0.0	0.0	187.3	5.3	3.7
ATX11549-1P/Y	RD/Y	467.5	185.9	92.5	77.1	16.2	11.1	236.1	34.4	4.1
ATX11556-1P/Y	RD/Y	401.1	78.8	73.3	5.5	0.0	0.0	302.4	19.8	3.7
ATTX10265-4R/Y	RD/Y	547.7	89.5	79.3	10.2	0.0	0.0	351.3	107.0	3.5
ATTX11633-1RYPinto/Y	RD/Y	396.0	66.3	48.7	17.6	0.0	0.0	326.7	3.0	3.7
NDTX059759-3RY/Y Pinto	RD/Y	305.5	153.1	88.1	52.6	12.4	0.0	152.0	0.5	4.2
Sierra Rose	RD/Y	606.3	326.0	154.3	94.7	77.0	0.0	274.0	6.3	4.3
TX14646-1W-R/YPinto	RD/Y	513.8	351.3	107.8	128.6	115.0	0.0	160.3	2.3	4.4
ATTX11617-2R/Y	Red	689.8	208.1	164.3	43.8	0.0	0.0	442.7	39.0	3.8
NDTX12248Y-1R	Red	445.3	239.3	119.7	91.4	28.3	0.0	202.2	3.8	3.7
NDTX4784-7R	Red	499.1	281.9	127.0	95.2	59.7	2.6	212.4	2.2	4.4
Red LaSoda Dal	Red	625.4	326.7	147.7	95.9	83.2	0.0	231.0	67.7	3.8
Chieftain	Red	619.4	284.1	166.2	100.8	17.2	0.0	302.2	33.1	4.3
Red LaSoda	Red	604.2	298.1	146.6	106.2	45.3	0.0	206.1	100.0	3.7
COTX04050S-1P/P	Small	289.1	35.0	32.6	2.4	0.0	0.0	250.4	3.7	3.8
ATTX98444s-16R/Y	Small	321.2	35.2	35.2	0.0	0.0	0.0	282.8	3.2	3.7
NDTX1467C-1R	Small	307.9	31.1	31.1	0.0	0.0	0.0	276.8	0.0	3.4
ATTX07230-4Yre/Y	Lar	538.7	346.4	151.2	136.6	58.6	0.0	178.9	13.4	4.5
COTX08039-1R/R	Lar	525.7	201.3	157.6	43.7	0.0	0.0	288.2	36.3	3.5
COTX10012-1Ryspl/Y	Lar	422.6	200.2	104.3	76.2	19.7	0.0	214.7	7.7	3.9
COTX10118-4Wpe/Y	Lar	464.0	153.6	116.3	32.9	4.3	0.0	308.4	1.9	3.9
COTX10138-15Wpe/Y	Lar	489.0	240.1	143.8	83.0	13.3	0.0	246.7	2.2	4.3
NDTX092237C-2P/W	Lar	426.6	275.2	117.8	101.2	56.2	0.0	144.6	6.7	3.9
Average		436.6	164.7	91.3	49.5	23.9	0.7	246.9	24.3	3.8
L.S.D. (.05)		87.8	70.4	45.5	38.4	27.5	ns	54.2	18.3	0.2

¹ 1=very poor to 5= excellent

Dalhart
Table 9b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 19 entries in the Texas Advanced Red/Specialty Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATX11586-2R/Y	Fing	27.1	23.0	4.2	0.0	0.0	68.9	4.0	1.058	12.8	Oblong	Red
Banana	Fing	7.4	7.4	0.0	0.0	0.0	58.3	34.3	1.062	13.6	Long	White
PORTX03PG25-2R/R	Fing	14.5	14.5	0.0	0.0	0.0	82.9	2.6	1.054	12.2	Long	Red
ATX11549-1P/Y	RD/Y	39.7	19.7	16.8	3.3	2.1	50.9	7.2	1.058	12.9	Round	Purple
ATX11556-1P/Y	RD/Y	18.8	17.7	1.1	0.0	0.0	76.3	4.9	1.050	11.4	Round	Purple
ATTX10265-4R/Y	RD/Y	15.0	13.5	1.5	0.0	0.0	65.6	19.4	1.049	11.2	Round	Red
ATTX11633-1RYPinto/Y	RD/Y	16.5	12.7	3.9	0.0	0.0	82.6	0.8	1.059	13.1	Round	Red/Pinto
NDTX059759-3RY/Y Pinto	RD/Y	50.2	28.5	17.3	4.4	0.0	49.6	0.2	1.064	14.0	Round	Red/Pinto
Sierra Rose	RD/Y	53.2	25.6	15.3	12.3	0.0	45.8	1.1	1.061	13.5	Round	Red
TX14646-1W-R/YPinto	RD/Y	68.3	20.8	25.1	22.4	0.0	31.3	0.4	1.058	12.8	Round	Red/Pinto
ATTX11617-2R/Y	Red	30.4	24.0	6.4	0.0	0.0	64.0	5.6	1.066	14.2	Round	Red
NDTX12248Y-1R	Red	53.6	26.5	20.7	6.3	0.0	45.6	0.9	1.057	12.6	Round	Red
NDTX4784-7R	Red	55.6	25.4	18.5	11.8	0.5	43.4	0.5	1.053	11.9	Round	Red
Red LaSoda Dal	Red	51.8	23.2	15.4	13.2	0.0	37.0	11.1	1.058	12.8	Round	Red
Chieftain	Red	41.7	25.3	14.2	2.3	0.0	52.6	5.7	1.060	13.3	Round	Red
Red LaSoda	Red	49.2	24.3	17.3	7.6	0.0	34.5	16.3	1.054	12.2	Round	Red
COTX04050S-1P/P	Small	11.7	11.1	0.6	0.0	0.0	87.0	1.3	1.062	13.5	Round	Purple
ATTX98444s-16R/Y	Small	9.5	9.5	0.0	0.0	0.0	89.6	0.9	1.069	14.8	Round	Red
NDTX1467C-1R	Small	10.1	10.1	0.0	0.0	0.0	89.9	0.0	1.052	11.9	Round	Red
ATTX07230-4Yre/Y	Lar	65.8	27.7	26.5	11.6	0.0	31.8	2.5	1.055	12.3	Round	Yellow Red Eye
COTX08039-1R/R	Lar	36.6	28.4	8.2	0.0	0.0	56.3	7.0	1.059	13.1	Oblong	Red
COTX10012-1Ryspl/Y	Lar	47.6	25.6	17.8	4.2	0.0	50.7	1.7	1.058	12.9	Round	Red Yellow Splash
COTX10118-4Wpe/Y	Lar	33.2	25.3	7.0	0.8	0.0	66.4	0.4	1.058	12.8	Round	White Purple Eye
COTX10138-15Wpe/Y	Lar	49.2	29.3	17.2	2.6	0.0	50.4	0.4	1.063	13.7	Round	White Purple Eye
NDTX092237C-2P/W	Lar	64.5	28.1	24.1	12.3	0.0	33.5	2.0	1.077	16.3	Oblong	Purple
Average		32.9	19.1	9.4	4.4	0.1	60.8	6.2	1.058	12.9		
L.S.D. (.05)		10.4	8.0	7.1	4.8	ns	14.0	11.3	0.003	0.5		

Dalhart
Table 9c.

Average number of tubers per plant, tuber weight, percent stand 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 19 entries in the Texas Advanced Red/Specialty Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
ATX11586-2R/Y	Fing	19.3	3	52	1.9	2.3	4.7	3.5	8	1.54	1.15	8.7	5.7	4.9
Banana	Fing	5.7	0.9	89	2.4	2.8	4.8	3.3	3	2.62	1.08	8.1	3.1	2.9
PORTX03PG25-2R/R	Fing	9.3	1.9	91	1.6	2.8	4.2	3.3	13	2.26	1.09	10.5	4.7	4.3
ATX11549-1P/Y	RD/Y	9.8	3.5	100	2.0	3.8	2.8	3.8	64	1.15	1.13	7.3	6.4	5.7
ATX11556-1P/Y	RD/Y	16.8	1.8	100	1.5	3.0	3.6	3.4	36	1.13	1.21	7.0	6.1	5.1
ATTX10265-4R/Y	RD/Y	15.9	2.5	100	1.8	3.8	3.2	3.8	50	1.16	1.32	7.4	6.4	4.9
ATTX11633-1RYPinto/Y	RD/Y	14.6	2.4	83	2.0	3.1	5.0	3.5	0	1.11	1.11	6.8	6.1	5.5
NDTX059759-3RY/Y Pinto	RD/Y	7.2	3.3	94	1.9	3.3	5.0	3.6	0	1.22	1.32	7.8	6.4	4.9
Sierra Rose	RD/Y	11.2	4.1	98	1.5	3.6	3.9	3.6	14	1.28	1.17	8.1	6.3	5.4
TX14646-1W-R/YPinto	RD/Y	7.4	5.4	94	1.6	3.4	3.5	3.5	36	1.20	1.24	7.9	6.6	5.3
ATTX11617-2R/Y	Red	21.8	2.5	94	2.0	3.8	4.1	3.9	10	1.11	1.14	7.1	6.4	5.6
NDTX12248Y-1R	Red	11.4	4.0	74	1.8	3.3	3.8	3.6	25	1.16	1.18	7.7	6.7	5.7
NDTX4784-7R	Red	9.4	3.9	100	1.9	3.7	2.8	3.7	68	1.12	1.11	7.5	6.7	6.0
Red LaSoda Dal	Red	11.3	4.2	100	1.9	4.1	5.0	4.1	0	1.15	1.19	7.7	6.7	5.6
Chieftain	Red	11.8	5.4	97	1.8	3.8	3.6	3.9	28	1.10	1.27	7.4	6.7	5.3
Red LaSoda	Red	9.8	4.6	100	2.0	4.2	5.0	4.0	1	1.25	1.18	8.3	6.6	5.6
COTX04050S-1P/P	Small	14.2	2	98	2.0	3.6	4.9	3.7	3	1.18	1.18	6.6	5.6	4.7
ATTX98444s-16R/Y	Small	12.6	1.9	100	1.8	3.6	3.6	3.7	24	1.13	1.19	6.4	5.7	4.8
NDTX1467C-1R	Small	18.8	1.3	92	2.2	3.0	5.0	3.3	0	1.21	1.06	6.8	5.6	5.3
ATTX07230-4Yre/Y	Lar	11.3	3.9	91	1.5	3.4	4.4	3.5	8	1.06	1.12	7.0	6.6	5.9
COTX08039-1R/R	Lar	18.5	2.7	79	1.6	2.8	4.8	3.2	5	1.44	1.14	8.6	6.0	5.2
COTX10012-1Ryspl/Y	Lar	8.7	3.5	100	1.8	3.4	4.0	3.5	19	1.25	1.12	7.9	6.3	5.7
COTX10118-4Wpe/Y	Lar	17.3	2.4	82	1.6	3.1	4.9	3.4	0	1.11	1.21	7.3	6.6	5.4
COTX10138-15Wpe/Y	Lar	14.9	3.1	84	1.6	3.0	4.1	3.1	16	1.06	1.10	6.9	6.5	5.9
NDTX092237C-2P/W	Lar	15.0	4.4	54	1.8	2.3	5.0	3.2	0	1.25	1.16	8.2	6.6	5.7
Average		12.5	3.0	92	1.9	3.4	4.1	3.6	20	1.32	1.18	7.6	6.0	5.1
L.S.D. (.05)		3.6	1.1	13	0.3	0.5	0.3	0.3	8	0.12	0.05	0.7	0.3	0.3

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart
Table 9d.

Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 19 entries in the Texas Advanced Red/Specialty Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
ATX11586-2R/Y	Fing	3.4	2.6	1.0	4.0	4.6	4.8	5.0	5.0	5.0	5.0	0	0	3	0
Banana	Fing	2.4	5.0	1.0	4.0	1.0	5.0	5.0	5.0	3.6	5.0	0	0	0	0
PORTX03PG25-2R/R	Fing	3.7	5.0	1.0	4.0	4.6	5.0	5.0	5.0	4.6	4.6	0	0	0	0
ATX11549-1P/Y	RD/Y	3.4	1.3	1.0	4.1	4.5	5.0	5.0	5.0	4.8	4.8	0	0	0	0
ATX11556-1P/Y	RD/Y	3.2	1.0	1.0	4.0	4.8	5.0	5.0	5.0	4.0	5.0	0	0	0	0
ATTX10265-4R/Y	RD/Y	4.4	2.4	1.0	4.0	3.7	5.0	5.0	5.0	3.0	5.0	0	0	3	8
ATTX11633-1RYPinto/Y	RD/Y	3.0	1.5	1.0	3.8	2.3	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059759-3RY/Y Pinto	RD/Y	3.2	3.0	1.0	4.5	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Sierra Rose	RD/Y	3.0	2.6	1.4	4.0	3.6	5.0	5.0	4.4	4.8	5.0	0	0	3	0
TX14646-1W-R/YPinto	RD/Y	3.0	2.6	1.1	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX11617-2R/Y	Red	2.9	1.1	1.0	4.0	4.0	5.0	5.0	5.0	4.3	5.0	0	0	3	0
NDTX12248Y-1R	Red	1.0	2.5	1.0	4.0	3.8	5.0	5.0	4.6	5.0	4.9	0	0	0	3
NDTX4784-7R	Red	1.0	1.0	1.4	4.0	4.0	5.0	5.0	4.8	5.0	5.0	0	0	10	15
Red LaSoda Dal	Red	1.0	2.3	1.0	3.5	3.8	5.0	5.0	5.0	4.6	4.3	3	0	18	0
Chieftain	Red	1.0	2.0	1.0	3.8	3.5	4.8	5.0	5.0	4.4	4.6	0	0	3	40
Red LaSoda	Red	1.0	2.6	1.0	3.5	3.8	5.0	5.0	5.0	4.0	4.0	0	0	15	0
COTX04050S-1P/P	Small	4.5	1.0	1.0	4.0	4.8	5.0	5.0	5.0	4.7	5.0	0	0	0	0
ATTX98444s-16R/Y	Small	3.2	1.0	1.0	3.8	3.8	5.0	5.0	5.0	4.9	5.0	0	0	0	10
NDTX1467C-1R	Small	1.0	1.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
ATTX07230-4Yre/Y	Lar	2.5	1.0	1.0	4.1	1.6	5.0	5.0	4.9	5.0	5.0	0	0	5	43
COTX08039-1R/R	Lar	4.0	2.7	1.0	3.7	4.5	5.0	5.0	5.0	4.8	4.8	0	0	0	0
COTX10012-1Ryspl/Y	Lar	3.9	1.6	1.3	4.0	1.3	5.0	5.0	5.0	4.7	4.9	0	0	0	0
COTX10118-4Wpe/Y	Lar	3.7	1.2	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	13	0
COTX10138-15Wpe/Y	Lar	3.3	1.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	28	0
NDTX092237C-2P/W	Lar	1.0	2.6	1.0	4.0	4.4	4.8	5.0	5.0	4.9	4.4	0	0	0	0
Average		2.6	2.2	1.0	3.9	3.8	5.0	5.0	4.9	4.6	4.8	0.1	0	3	4
L.S.D. (.05)		0.2	0.3	0.1	0.1	0.3	ns		ns	0.4	0.3	ns		9.8	7.2

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark

⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 9e.

Notes and general rating for all reps of 19 entries in the Texas Advanced Red/Specialty Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Notes Grading	General Rating Grading
ATX11586-2R/Y	Fing	small, nice intense flesh, smooth skin, very nice skin, oval to oblong, smooth skin, shinny skin, very nice flesh, nice skin-flesh combination, pointed	3.6, 4, 3.8, 3.6
Banana	Fing	very few tubers, fingerling, few tubers, intense knobs, terrible shape, very few tubers, few tubers, knobs	1.5, 2, 1.5, 2
PORTX03PG25-2R/R	Fing	uniform size, uniform shape, prepare PVP dossier, fingerling, intense skin color, nice,,	3.8, 3.7, , 3.6
ATX11549-1P/Y	RD/Y	BOT, nice, silver scurf+, uniform size and shape, large, high tuber number, giant blue berries, large, high density of eyes at bud end, white lenticels, some rotten tubers	4.5, 4.3, 3.7, 3.7
ATX11556-1P/Y	RD/Y	black beans, uniform size and shape++, small, almost black skin, Halloween potato, black plums, parent, chained tubers, knobs, DROP, blackberries, small	3.8, 3.8, 3.5, 3.8
ATTX10265-4R/Y	RD/Y	DROP++, pear shape+, nonuniform shape, intense yellow flesh color, parent+, many knobs+, parent for flesh color, high tuber number, nice skin, chained tubers+, a little flat, pointed, very intense yellow flesh+, nice skin/flesh combination	3.5, 3.6, 3.5, 3.4
ATTX11633-1RYPinto/Y	RD/Y	compressed, native, deep eyes, pinto, mini LaSoda, skin pattern variation, small	3.6, 3.7, ,
NDTX059759-3RY/Y Pinto	RD/Y	smooth skin, flat, beautiful skin pattern+, prepare PVP dossier, flat, pink streaks 40%	4.4, 3.8, 4, 4.5
Sierra Rose	RD/Y	large tubers, high tuber number+, BOT, nice, variation in shape, silver scurf, scab	4.6, 4.2, 4.2, 4.2
TX14646-1W-R/YPinto	RD/Y	large, pink/yellow flesh, high tuber number+++, medium-large tubers, nice+, yellow-pink flesh++, large, parent: cross with Harlequin	4.4, 4.4, 4.5, 4.4
ATTX11617-2R/Y	Red	high tuber number, chained tubers, high tuber number, chained tubers,, high tuber number, chained tubers, heat sprouts, uniform size, uniform shape	4, 3.6, 3.7, 4
NDTX12248Y-1R	Red	dark red eyes, scab, Red LaSoda replacement, shallower eyes, similar skin color, nice, medium to large, parent, cross with smooth skin, silver scurf	3.7, 3.7, 3.7, 3.8
NDTX4784-7R	Red	medium size, BOT, parent, cross with smooth skin, Red LaSoda replacement??	4.4, 4.2, 4.2, 4.6
Red LaSoda Dal	Red	large, wild, deep eyes+++, red vascular discoloration, large, very high tuber number	3.8, 3.6, 3.8, 3.8
Chieftain	Red	uniform size and shape, red eyes, some skin color variation, high tuber number+, parent for high yield and high tuber number	4, 4.2, 4.5, 4.4
Red LaSoda	Red	deep eyes+++, nonuniform shape, many culls (knobs), large, very high tuber number, parent for tuber number and yield+	3.8, 3.5, 3.8, 3.8
COTX04050S-1P/P	Small	attached stolons+, small, MIXED flesh color white and purple+, some rotten, white lenticels, parent, very uniform shape and size	3.5, 3.6, 3.5, 4.5
ATTX98444s-16R/Y	Small	small+++, uniform size and shape, nice, 10% ZC, parent	3.8, 3.8, 3.8, 3.5
NDTX1467C-1R	Small	silver scurf, small, uniform size, uniform shape, DROP	3.4, , ,
ATTX07230-4Yre/Y	Lar	impressive, high tuber number++, uniform size++, uniform shape++, unique skin pattern+, large, parent for high tuber number and yield, prepare for PVP, BOT++	4.6, 4.5, 4.5, 4.5
COTX08039-1R/R	Lar	red flesh, brain flesh, some rotten, very dark skin, dislike appearance, uniform size, non-uniform flesh color, dotted flesh, high tuber number, ugly, red-purple skin, uneven skin color, ugly, parent, uneven pigment distribution in flesh, DROP+++	3.4, 3.5, 3.5, 3.5
COTX10012-1Ryspl/Y	Lar	intense yellow flesh, unique skin pattern, uniform size, uniform shape	4, 4, 3.6, 4
COTX10118-4Wpe/Y	Lar	nice, medium-small, purple eye shadow, nice, smooth skin, unique skin color pattern	4, 3.8, 4, 3.8
COTX10138-15Wpe/Y	Lar	uniform shape+, high tuber number, nice skin pattern, purple eye shadow+, uniform size	4.2, 4.5, 4.2, 4.4
NDTX092237C-2P/W	Lar	white lenticels+, surprise white-purple flesh+++, very large, large, strong, high tuber number, nice, cool	4, 3.6, 4, 4

2019 4 Hill Red/Specialty Selections Trial, Dalhart

The trial consisted of 207 entries of which thirty-three (ATX11684-2W/Y, COTX15182-2Ru, NDTX14156-2R/Y, TX17734-1Y/Y, TX17788-4R, NDTX14156-3P, TX17742-19R/R, TX17742-23P, TX17750-1R/R, TX17750-8R/R, TX17805-10Y-Ppinto/Y, TX17805-12R/R, TX17805-13R/R, TX17805-8R/R, TX17815-1P/P, NDTX14156-1R/Y, TX17755-2Psplash, TX17765-1R/Y, TX17805-1RWPinto/R, TX17808-2R/Y, COTX15083-1R, COTX15111-1R, TX17713-2R, TX17733-1R, TX17802-5R, COTX15111-3R, COTX16212-2Y/Y, TX17714-4R, TX17742-22P/P, TX17773-3R/Y, TX17797-11Y/Y, TX17805-2R/R, and TX17815-4P/P) will be advanced in 2020 (Table 10).

Dalhart
Table 8

Inventory weight of 14 entries to be advanced
from the 2019 4 hill Russet Selection Trial
grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Inventory Weight
ATX08322-1Ru	4Hill19Russ366	11.1
ATX13287-1Ru	4Hill19Russ373	10.9
ATX15008-1Ru	4Hill19Russ381	16.7
ATX15025-2Ru	4Hill19Russ383	15.1
ATX15097-2Ru	4Hill19Russ391	12.8
ATX15099-1Ru	4Hill19Russ392	6.8
COTX15123-1Ru	4Hill19Russ403	8.4
COTX15123-2Ru	4Hill19Russ404	9.3
COTX15123-3Ru	4Hill19Russ405	8.3
COTX15169-1Ru	4Hill19Russ408	12.5
COTX15169-2Ru	4Hill19Russ409	8.7
COTX16005-1Ru	4Hill19Russ429	12.6
COTX16209-1Ru	4Hill19Russ448	9.7
COTX16217-2Ru	4Hill19Russ450	6.5

Texas Advanced White/Yellow Selection Trial, Dalhart

This trial consisted of seven entries including the check variety Yukon Gold.

Results: (Dalhart Tables 11a, 11b, 11c, 11d, and 11e)

- Sierra Gold had a high general rating and a best of trial designation, while AORTX11913-3Wre, NDTX081451CBs-1Y/Y, and Yukon Gold also had high general ratings (Tables 11a).
- AORTX11913-3Wre/Y had the highest total yield, while Sierra Gold had the highest marketable yield. Yukon Gold had the highest yield of 4-6 oz. tubers (Table 11a).
- Sierra Gold had the highest yield of over 10 oz. tubers. AORTX11913-3Wre/Y had the highest yield of less than 4 oz. tubers. UNICA had the highest yield of culls/No. 2 tubers (Table 11a).
- Sierra Gold had the highest percentage of marketable and yield of over 6 oz. tubers (Table 11b).
- TACNA had the highest percentage of less than 4 oz. tubers, while UNICA had the highest percentage of culls/No. 2 tubers (Table 11b).
- Sierra Gold and ATX05202s-3W/Y had the highest specific gravity (Table 11b).
- UNICA had the highest average tubers per plant (Table 11c).
- All the entries were later in maturity than Yukon Gold and Sierra Gold (Table 11c).
- ATX05202s-3W/Y, NDTX081451CBs-1Y/Y, and Sierra Gold had the darkest yellow flesh (Table 11d).
- Yukon Gold and TACNA had the highest percentage of internal brown spot (Table 11e).

Comments on entries:

- AORTX11913-3Wre Round White high tuber number+++ , uniform size and shape++ , some mixed russet tubers, pink eyes+ , very round, parent for tuber number, nice, small-medium, FC=1.0
- ATX05202s-3W/Y Round White high tuber number++ , dislike shape+ , no small, nonuniform shape, round to oval, small, uniform size, parent? DROP+ , FC=3.2
- NDTX081451CBs-1Y/Y Round White small-medium+ , uniform size and shape+ , small, high tuber number, FC=3.0

- Yukon Gold Round White impressive number of tubers, large tubers++, nice, high tuber number+, FC=2.9
- Sierra Gold Round Russet very nice, large+, parent, BOT, FC=3.0
- UNICA Oval White very long heat sprouts, knobs, terrible, yellow flesh, FC=2.5
- TACNA Oval Red pointed, knobs, terrible, red skin, FC=1.0

¹FC=Flesh color intensity, 1=very light to 4=very dark

Summary:

Sierra Gold, AORTX11913-3Wre, NDTX081451CBs-1Y/Y, and Yukon Gold were the best entries for this trial.

Disposition:

AORTX11913-3Wre	Keep, enter into TC
ATX05202s-3W/Y	DROP, make a decision to drop from TC and minitubers
NDTX081451CBs-1Y/Y	Keep
Yukon Gold	Keep
Sierra Gold	Keep
UNICA	Keep
TACNA	Keep

Dalhart
Table 11a.

Total yield, total yield of U.S. No.1, over 18 oz, under 4 oz and culls/No.2 potatoes and general rating of 7 entries in the Texas Advanced White Skin Yellow Flesh Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Total Yield cwt/a	U.S. No. 1 cwt/a			Over 18 oz cwt/a	Under 4 oz. cwt/a	Culls/ No.2 cwt/a	General Rating ¹ Grading	
			Total Yield	4-6 oz	6-10 oz					10-18 oz
AORTX11913-3Wre	WH/Y	580.5	134.3	102.7	29.9	1.7	0.0	409.4	36.8	4.3
ATX05202s-3W/Y	Small	563.4	160.6	126.2	34.4	0.0	0.0	360.2	42.6	3.8
NDTX081451CBs-1Y/Y	Small	547.4	164.6	120.9	43.7	0.0	0.0	355.8	27.0	4.0
Yukon Gold	WR19	489.4	304.3	139.3	135.1	29.9	0.0	162.3	22.8	4.3
Sierra Gold	WH/Y	450.7	339.6	124.8	155.0	59.8	9.3	98.3	3.5	4.4
UNICA	WH/Y	299.2	0.0	0.0	0.0	0.0	0.0	87.9	211.4	2.5
TACNA	WH/Y	207.7	0.0	0.0	0.0	0.0	0.0	207.7	0.0	2.5
Average		448.3	157.6	87.7	56.9	13.1	1.3	240.2	49.2	3.7
L.S.D. (.05)		ns	62.4	ns	42.9	20.3	ns	70.8	14.5	0.3

¹ 1=very poor to 5= excellent

Dalhart
Table 11b.

Percent by weight of U.S. No. 1, over 18 oz, under 4 oz, culls/No.2 potatoes, specific gravity, tuber type and skin type of 7 entries in the Texas Advanced White Skin Yellow Flesh Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
AORTX11913-3Wre	WH/Y	23.0	17.8	4.9	0.3	0.0	70.6	6.4	1.058	12.9	Round	White
ATX05202s-3W/Y	Small	28.0	22.4	5.5	0.0	0.0	64.5	7.5	1.069	14.9	Round	White
NDTX081451CBs-1Y/Y	Small	30.3	22.3	8.0	0.0	0.0	65.0	4.7	1.065	14.1	Round	White
Yukon Gold	WR19	61.0	27.9	27.6	5.5	0.0	34.2	4.8	1.066	14.3	Round	White
Sierra Gold	WH/Y	76.6	28.8	33.9	13.9	1.9	20.6	0.8	1.070	15.1	Round	Russet
UNICA	WH/Y	0.0	0.0	0.0	0.0	0.0	29.4	70.6	1.053	11.9	Oval	White
TACNA	WH/Y	0.0	0.0	0.0	0.0	0.0	100.0	0.0	1.055	12.3	Oval	Red
Average		31.3	17.0	11.4	2.8	0.3	54.9	13.6	1.062	13.6		
L.S.D. (.05)		8.9	9.1	6.6	4.7	ns	8.7	2.8	0.005	0.8		

Dalhart
Table 11c.

Average number of tubers per plant, tuber weight, percent stand and 60 days after planting, plant characteristics, percent dead vine at vine kill, length/with, and with/thickness, length cm, with cm, and thickness cm of 7 entries in the Texas Advanced White Skin Yellow Flesh Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines	Length/ With	With/ Thickness	Length cm	With cm	Thickness cm
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴						
AORTX11913-3Wre	WH/Y	17.5	2.4	100	1.8	3.8	5.0	3.9	1	1.08	1.18	6.9	6.4	5.4
ATX05202s-3W/Y	Small	14.8	2.8	100	2.0	3.9	5.0	3.9	0	1.36	1.19	8.0	5.9	5.0
NDTX081451CBs-1Y/Y	Small	15.3	2.6	100	2.1	3.8	5.0	3.9	0	1.22	1.12	7.4	6.0	5.4
Yukon Gold	WR19	9.1	4.3	89	1.1	3.3	3.7	3.6	18	1.15	1.18	7.6	6.6	5.7
Sierra Gold	WH/Y	7.7	4.7	94	1.5	3.7	4.1	3.8	19	1.27	1.18	8.5	6.7	5.7
UNICA	WH/Y	19.0	1.4	83	1.5	3.6	5.0	3.5	0	1.40	1.18	8.4	6.0	5.1
TACNA	WH/Y	9.4	1.6	100	2.0	3.8	5.0	3.8	0	1.34	1.20	7.9	5.9	4.9
Average		13.3	2.8	95	1.7	3.7	4.7	3.8	5	1.26	1.18	7.8	6.2	5.3
L.S.D. (.05)		2.3	0.6	ns	0.2	ns	0.2	0.1	6	0.10	ns	0.6	0.4	0.3

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart
Table 11d.

Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 7 entries in the Texas Advanced White Skin Yellow Flesh Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹¹	Percent Internal Brownspot
AORTX11913-3Wre	WH/Y	1.0	1.0	1.0	4.0	1.0	5.0	5.0	5.0	4.0	5.0	0	0	0	10
ATX05202s-3W/Y	Small	3.2	1.9	1.0	4.0	1.0	5.0	5.0	5.0	4.0	5.0	0	0	8	3
NDTX081451CBs-1Y/Y	Small	3.0	1.3	1.0	4.0	1.0	5.0	5.0	5.0	4.0	5.0	0	0	3	3
Yukon Gold	WR19	2.9	1.5	1.0	4.0	1.0	4.8	5.0	5.0	4.9	5.0	3	0	0	25
Sierra Gold	WH/Y	3.0	2.8	3.5	4.0	3.5	5.0	5.0	5.0	4.6	4.9	0	0	0	8
UNICA	WH/Y	2.5	1.5	1.0	4.0	3.0	5.0	5.0	5.0	2.0	5.0	0	0	0	0
TACNA	WH/Y	1.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	2.5	5.0	0	0	0	20
Average		2.4	1.6	1.4	4.0	1.6	5.0	5.0	5.0	3.7	5.0	0.4	0	1	10
L.S.D. (.05)		0.3	0.4	0.0	ns	0.0	ns			0.3	ns	ns	0.0	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 11e. Notes and general rating for all reps of 7 entries in the Texas Advanced White Skin Yellow Flesh Selection Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Notes Grading	General Rating Grading
AORTX11913-3Wre	WH/Y	high tuber number+++ , uniform size and shape++ , some mixed russet tubers,pink eyes+ , very round, parent for tuber number, nice, small-medium	4.4, 4.2, 4.2, 4.2
ATX05202s-3W/Y	Small	high tuber number++ , dislike shape+ , DROP+ , no small, nonuniform shape, round to oval, small, uniform size, parent?	3.8, 3.7, 3.8, 3.8
NDTX081451CBs-1Y/Y	Small	small-medium+ , uniform size and shape+ , small, high tuber number	3.8, 3.8, 4.2, 4
Yukon Gold	WR19	impressive number of tubers, large tubers++ , nice, high tuber number+	3.6, 4.6, 4.6, 4.4
Sierra Gold	WH/Y	BOT, vey nice, large+ , parent	4.4, 4.5, 4.5, 4.2
UNICA	WH/Y	very long heat sprouts, knobs, terrible, yellow flesh	2.5, , ,
TACNA	WH/Y	pointed, knobs, terrible, red skin, pointed	2.5, , ,

2019 4 Hill White/Yellow Selections Trial, Dalhart

The trial consisted of twenty-eight entries of which one (TX17763-2W/Y) will be advanced in 2020 (Table 12).

Dalhart
Table 12

Inventory weight of 1 entry to be advanced from the
2019 4 Hill White Skin Yellow Flesh Selection
Trial grown near Dalhart, Texas-2019.

Variety or Selection	Trial	Inventory Weight
TX17763-2W/Y	4Hill19WH/Y554	16.5

Appendix A. General notes on potato varieties or selections- 2019.

BC=brown center
BOT=Best of Trial
D/K=drop/keep
FC=flesh color 1-5=dark
GH=green head
HH=hollow heart
IBS=internal brown spot
MB=mahogany browning
Mech=mechanical damage
Sugar=sugar ends
SE = Stem end discoloration
TM=tuber moth
CR=Chip quality rating
ZC=Zebra chip
Color Code
Champ/Y=Champagne yellow flesh
LtP/Y=Light purple yellow
ORG/Y=Orange yellow flesh
P/Y=Purple yellow flesh
P/Y-P=Purple yellow flesh purple streaks
P/P=Purple purple flesh
Pwe/W=Purple white eye white flesh
Pyspl/Y=Purple yellow splash yellow flesh
R=Red white flesh
R/R=Red red flesh
R/W-R=Red White red streaks flesh
R/Y=Red yellow flesh
Ru=Russet white flesh
Ru/Y=Russet yellow flesh
Rure/Y=Russet red eye yellow flesh
Rye/W=Red yellow eye white flesh
Rye/Y=Red yellow eye yellow flesh
RYPinto/Y=Red yellow pinto yellow flesh
Ryspl/Y=Red yellow splash yellow flesh
s=Small
W=White white flesh
W/Y=White yellow flesh
Wpe/W=White purple eye white flesh
Wre/Y=White red eye yellow flesh
Y=Yellow white flesh
Y/Y=Yellow yellow flesh
Ype/Y=Yellow purple yellow flesh
Yrdspl/Y=Yellow red splash yellow flesh
Yre/Y=Yellow red eye yellow flesh

A07061-6-Blocky White. Parentage (Targhee Russet x Clearwater Russet). Cross was made and selected in Idaho.
Medium maturity. Medium vine size. Red purple flower color.

Uses: dual

Strength: high tuber number good tuber number+, good and light skin

Weakness: non-uniform shape+, round+, oval+, oblong, nonuniform skin, buff skin, light skin++, misshapen heat sprouts+++ and chain tubers++, knobs++, different shapes buff skin and flat, small++, light russet, attached stolons

Cutting Notes: lighter skin, pressure cracks

A071012-4BF-Long Russet. Parentage (A85331-7 x A01054-4). Cross was made and selected in Idaho. Medium late maturity. Medium-large vine size. White flower color.

Uses: dual

Strength: BOT

Weakness: non-uniform shape, oval to very long, heals dark, knobs, pointed, light skin chain tubers+ and heat sprouts++, shape ok, poor skin (minor), knobs++, pointy+, but good number+, rots, bad shape, non-uniform russet skin

Cutting Notes: light russetting

A07769-4-Oblong Russet. Parentage (PA01N32-1 x Premier Russet). Cross was made and selected in Idaho. Medium early maturity. Small vine size. Red-purple flower color.

Uses: dual

Strength: nice shape, blocky+, nice skin nice skin, and good number, nice shape bulky, excellent size and shape nice russet skin, BOT

Weakness: non-uniform skin lower yield, round tubers, heat sprouts+ and knobs, medium growth, chain tubers, smaller shape 30% soft rots stolon ends, Cutting Notes: golden skin, bulky, light russetting

A08112-7R-Round Red. Parentage (A99331-2RY x COA01406-1R). Cross was made and selected in Idaho. Medium-early maturity. Medium vine size Dk Red-Purple flower color

Uses: Fresh

Strength: small+, uniform shape and size++ medium size, nice uniform size, very small++, intense red skin color+, high tuber set++, uniformly small, true small, many tubers, FC=1.0, C=1.1

Weakness: attached stolons++, late++, heat sprouts, rot, greenheads,

Cutting Notes: intense red skin color, oval

A08422-4VRsto-Long Russet. Parentage (A96953-13sto x A02618-1adg). Cross was made and selected in Idaho. Medium-early maturity. Small vine size. White flower color

Uses: dual

Strength: high tuber number+, large,

Weakness: several rotten, very long, curved, pointed, light skin+, ZC 10%, bad shape, angular low tuber number++, heat sprouts, medium number and rots, chain tubers+, bad number knobs, shriveled soft tubers, non-uniform russet skin

Cutting Notes:

A08433-4VR-Oblong Russet. Parentage (A01667-3 x AOND95249-1Russ). Cross was made and selected in Idaho. Medium maturity. Large vine size. White flower color

Uses: dual

Strength: good size+, very high tuber number,

Weakness: heat sprouts++ chain tubers++ and deformed, fat, poor skin, lower number of tubers+ moon shape, light skin and medium tuber number, non-uniform russet skin flat, rotten tubers, pointy, shriveled tubers non-uniform shape, oval to very long, it heals dark, pointed+, some very large and long, large number of smalls, knobs, a little flat

Cutting Notes: uneven russetting, pointy

A10021-5TE-Very Long Russet. Parentage (A03921-2 x Mountain Gem Rus). Cross was made and selected in Idaho. Early maturity. Small vine size. White flower color.

Uses: dual

Strength: nice tuber size high tuber number+,

Weakness: long moon shape+, long skinny and pointed++, heat sprouts++ long tubers+, knobs+, shriveled very very long+, many eyes pointed++, foot long, large, light skin

Cutting Notes: nice russet skin

AO02183-2-Oblong Russet. Parentage (A98082-17 x Premier R). Cross was made in Idaho and selected in Oregon. Medium-late maturity. Medium-small vine size. White flower color.

Uses: dual

Strength: high tuber number++++, nice russet skin

Weakness: skinny+, many eyes, light eyes, very long, knobs+, pointed knobs+++ non uniform shape++, skin ok, good skin, heat sprouts++ chain tubers+, other deformities seen, non-uniform size+, many eyes, many smalls

Cutting Notes:

AOR07781-5-Long Russet Parentage (PA92A08-17 x PALB03035-6). Cross was made in Idaho and selected in Oregon. Medium maturity. Medium vine size. White flower color

Uses: dual

Strength: high tuber number, deep eyes, like Russet Norkotah yellow flesh, parent long high tuber number++, good skin good yield, lighter eye area many eyes parent for ZC tolerance,

Weakness: very large+, very long+, many eyes+, light eyes+, pointed+, knobs+ heat sprouts+ and deformed, moon shaped++, pointed++, lower number and knobs++, bowling pin

Cutting Notes: yellow flesh, deep eyes, blocky

AORTX09033-11W-Oblong White. Parentage (CO96141-4W x Ivory Crisp). Cross was made in Idaho, tuberling produced in Oregon and selected in Texas.

Uses: chip

Strength:

Weakness: angular tubers, large tubers, FC=1.

Chip Notes: CR=1.7:69% Good chip, 2 bruise, 2 bruise,1 vas,1 hh,

Cutting Notes:

AORTX09037-1W/Y-Round White. Parentage (Fasan x Ivory Crisp). Cross was made in Idaho, tuberling produced in Oregon and selected in Texas.

Uses: chip

Strength:

Weakness: small, FC=2.

Chip Notes: CR=1.1, 94% Good chip, nice, 2 vas, nice

Cutting Notes:

AORTX09037-4W/Y-Round White. Parentage (Fasan x Ivory Crisp). Cross was made in Idaho, tuberling produced in Oregon and selected in Texas.

Uses: chip

Strength:

Weakness: angular tubers+++, flat, heat sprouts, large tubers, attached stolons, ugly shape, drop, FC=1.

Chip Notes:65% Good chip, 3 bruise, 2 se2,2 scab,1 bruise, 2 bruise,2 ihn, 1 bruise,1 ihn

Cutting Notes:

AORTX09037-5W/Y-Round White. Parentage (Fasan x Ivory Crisp). Cross was made in Idaho, tuberling produced in Oregon and selected in Texas.

Uses: chip

Strength: snaps,

Weakness: flat, angular tubers+, bad shape, FC=1.4smaller tubers, not uniform skin texture

Chip Notes: CR=1.568% Good chip, 4 vas,2 bruise, 1 se2,1 vas, 6 vas

Cutting Notes: too sprouted

AORTX11913-3Wre-Round White-Red Eye. Parentage (A03576-5Y x NDA050237B-1R). Cross was made in Idaho, tuberling produced in Oregon and selected in Texas.

Uses: fresh

Strength: high tuber number+++ , uniform size and shape++ , very round, parent for tuber number, nice, small-medium, red eyes high tuber number, pink eyes+ , shiny, small, smooth skin, clean as parent, move to WR, fleshy flesh and snow-white flesh

Weakness: some mixed russet tubers, pink eyes+ , heat sprouts+++ , low tuber number, FC=1.0, FC=1.0

Cutting Notes: white flesh, vascular discoloration

Atlantic-Round White. Parentage (Wauseon x Lenape). Cross was-made in Beltsville, MD, and selected in Maine.

Released in 1976 by USDA-ARS, Florida, Virginia, New Jersey and Maine Agricultural Experiment Stations.

Medium maturity. Medium vine size. Pale lavender flower color.

Uses: chip

Strength: uniform, large tubers+ , large tubers, nice skin,

Weakness: attached stolons, pointed FC=1. FC=1.06

Chip Notes: CR=1. CR=1.4CR65% Good chip, 3 bruise, 2 se2, 2 scab,1 bruise, 2 bruise, 2 ihn, 1 bruise,1 ihn 85% Good chip, 1 se1,1 bruise, 2 bruise, 1 bruise, 1 vas .

Cutting Notes:

ATTX05175s-1R/Y-Round Red/Yellow. Parentage (A99331-2RY X COA99261-IRY). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas.

Uses: fresh

Strength: high tuber number+ , small++ , uniform, mini RLS very small+++ , uniform size and shape+++ ,

Weakness: not uniform size and shape, late, a little compressed+ , FC=4.0 FC=4.

Cutting Notes: very nice skin, intense yellow flesh, Kelly likes

ATTX07042-3W-White. Parentage (Western russet EM x A02086-10 EM 500). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas. Early-Medium maturity. Medium vine size. White flower color.

Uses: chip

Strength: high tuber number+

Weakness: attached stolons, non-uniform size+ , large tubers angular tubers, FC=2.0

Chip Notes: CR=1.3 84% Good chip, 2 se1,1 bruise, 2 se2,1 vas, nice

Cutting Notes:

ATTX07230-4Y/RE/Y-Round Yellow Red Eye/Yellow. Parentage (AO0286-3Y y x Modoc red 500). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas.

Uses: fresh

Strength: impressive, high tuber number++ , uniform size++ , uniform shape++ , unique skin pattern+ , large, parent for high tuber number and yield, prepare for PVP, BOT++

Weakness: FC=2.5

Cutting Notes:

ATTX10008-1Ru-Long Russet. Parentage (A02060-3TE x A05013-5TE). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas.

Uses: fresh

Strength:

Weakness: very light skin, blocky, FC=1.0

Cutting Notes:

ATTX10008-1Ru-Oblong Russet. Parentage (A02060-3TE x Stampede Russet). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas.

Uses: fresh

Strength: nice shape and skin, nice russet skin, good shape,

Weakness: very large, pointed+, few tubers, bad rep, few tubers, not large, non-uniform russeting, missing data for yield and gravity DROP? FC=1.0

Cutting Notes:

ATTX10265-4R/Y-Oblong Red/Yellow. Parentage (A02267-2PY X US 147-96RIY). Cross was made in Idaho, tuberling produced in Texas and selected in Texas.

Uses: fresh

Strength: high tuber set+, very intense yellow flesh, Bruce likes, light red skin color, nice skin color with orange tint, high tuber number, , intense yellow flesh color, parent+, parent for flesh color, high tuber number, nice skin very intense yellow flesh+, nice skin/flesh combination BOT+

Weakness: heat sprouts++, a little flat, , pear shape+, non-uniform shape many knobs+ chained tubers+, a little flat, pointed DROP++, FC=4.0 FC=4.

Cutting Notes: nice skin and flesh combination

ATTX10333-1W-Round White Parentage (AFA3976TPS-1 x NY139). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas.

Uses: chip

Strength:

Weakness: FC=2.2,

Chip Notes: CR=2.0, 55% Good chip, 3 vas, 1 dry rot, 1 gh, 4 vas

Cutting Notes: yellow flesh

ATTX10378-3Ru/Y-Oblong Russet/Yellow. Parentage (Granola x CO00412-5W/Y). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas.

Uses: fresh

Strength: golden skin, nice shape, nice

Weakness: short, FC=3.5

Cutting Notes:

ATTX10389-1W-Round White. Parentage (Marike x NY139). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas.

Uses: chip

Strength:

Weakness: FC=1.0

Chip Notes: CR= 1.770% Good chip, 2 ihn,2 bruise, 1 ihn, 3 bruise,1 ihn, 3 vas

Cutting Notes: dislike shape

ATTX11617-2R-Round Red. Parentage (US147-96R/Y x ND8555-8R). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas.

Uses: fresh

Strength: intense skin color high tuber number++, uniform size and shape

Weakness: low tuber set+, not uniform size, rot, sprouts, chained tubers++, heat sprouts FC=1.0 FC=2.9

Cutting Notes: nice skin, intense yellow flesh, good size, enter tissue culture from Dalhart

ATTX11633-1RY Pinto/Y-Round Red Yellow pinto/Yellow. Parentage (Pinto x ND8555-8R). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas.

Uses: fresh

Strength:

Weakness: compressed, native, deep eyes, pinto, mini LaSoda, skin pattern variation, small, FC=3.0

Cutting Notes: pinto Red LaSoda

ATTX98444s-16R/Y-Oblong Red/Yellow. Parentage (A83360-9R X T48YF). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas.

Uses: fresh

Strength: uniform size and shape, uniform small+, small+++, uniform size and shape, nice, parent

Weakness: low tuber set attached stolons, 10% ZC FC=2.9 FC=3.

Cutting Notes: very intense yellow flesh, Kelly likes

ATX05202s-3W/Y-Round White/Yellow. Parentage (A00286-3Y x A99433-5Y). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength: high tuber number++, uniform size, parent? high tuber number++, uniform size small size+++, find a good home, nice, uniform size and shape+, lemon flesh,

Weakness: dislike shape+, no small, nonuniform shape, round to oval, small, sprouts DROP+, FC=3.2, FC=2.

Cutting Notes:

ATX06264s-4R/Y-Round Red/Yellow. Parentage (A99331-2RY x Durango Red). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength: intense skin color+, high tuber number smooth skin small+, uniform size and shape+++ , high tuber number

Weakness: late+++ , not uniform shape or size+, not small, heat sprouts, rot, FC=2.9 FC=3.6

Cutting Notes: blue green fungi on skin

ATX08121-3P/Y-Round Purple/Yellow. Parentage (A02267-5PY x CO98012-5R). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength: very small+++ , very uniform size and shape++ , yellow flesh, include in maturity trial, , BOT

Weakness: road map skin, very few tubers FC=2.0

Cutting Notes: very sprouted, oily flesh, nice shape, small

ATX08121-5R-Round Red. Parentage (A02267-5PY x CO98012-5R). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength: high tuber set, medium red skin color, light skin color+, small,

Weakness: dark abundant lenticels, unpleasant skin color, washed color, uneven skin color, shiny, darker pink eyes, drop, FC=1.0

Cutting Notes:

ATX08322-1Ru-Russet. Parentage (A02516-102LB x PALB0302-1). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength:

Weakness:

ATX11549-1P/Y-Oval Purple/Yellow. Parentage (Huckleberry Gold x ND8555-8R). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength: nice uniform size and shape, large+, high tuber number, giant blue berries, high density of eyes at bud end, white lenticels BOT,

Weakness: low tuber number+, not uniform size, few large tubers, ugly skin, silver scurf+, some rotten tubers drop, FC=3.0, FC=3.

Cutting Notes: large tubers

ATX11556-1P/Y-Round Purple/Yellow. Parentage (A99331-2RY x NDA050237B-1R). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength: small+, intense dark skin color, shiny skin+, yellow flesh high tuber number black beans, uniform size and shape++, small, almost black skin, Halloween potato, black plums, parent

Weakness: not uniform flesh heat sprouts++++, chain tubers susceptible to heat, rot, chained tubers, knobs blackberries, small drop++, DROP, FC=2.5 FC=3.2,

Cutting Notes:

ATX11586-2R/Y-Oblong Red/Yellow. Parentage (A05173-2RY x Mila). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength: small, nice intense flesh, smooth skin, very nice skin, oval to oblong, smooth skin, shiny skin, very nice flesh, nice skin-flesh combination intense skin color+++ , small smooth shiny skin,

Weakness: pointed, low tuber set+, late, oblong, few tubers FC=3.4, FC=2.6

Cutting Notes:

ATX11684-2W/Y-White/Yellow Parentage (Nicola x POR02PG26-5). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength:

Weakness:

ATX13018-2Ru-Oblong Russet. Parentage (A06015-13TE x A06084-1TE). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength: blocky+++ , parent, nice, golden russet+, very nice, BOT

Weakness: FC=1.0

Cutting Notes:

ATX13134-3W/Y-Round White/Yellow. Parentage (NDA081451CB-1CY x CO02321-4W). Cross was made in Idaho and selected in Texas. Medium-late maturity.

Uses: chip

Strength:

Weakness: large tubers+, severe scab, FC=2.

Chip Notes: CR=1.4, 81% Good chip, 2 vas, 1 se2,1 ihn, 2 vas,

Cutting Notes: yellow flesh

ATX13287-1Ru-Russet. Parentage (A07774-2VR x CO99053-3Ru). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength:

Weakness:

ATX15008-1Ru-Russet. Parentage (A09001-14TE x A09004-2TE). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength:

Weakness:

ATX15025-2Ru-Russet. Parentage (A10089-7TE x A09004-2TE). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength:

Weakness:

ATX15097-2Ru-Russet. Parentage (Castle Russet x A98345-1). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength:

Weakness:

ATX15099-1Ru-Russet. Parentage (Castle Russet x A10007-3). Cross was made in Idaho and selected in Texas.

Uses: fresh

Strength:

Weakness:

Banana-Long White. Parentage (Grown in British Columbia for over 90 years. Research indicates that the variety might have been introduced to early settlers and natives by Russian fur traders. The exact origin, parental lines or breeding techniques used in its development are not known.)

Uses: fresh

Strength:

Weakness: small, heat sprouts+++ , chain tubers++ , late, susceptible to heat, many culls, very few tubers, fingerling, few tubers++ , intense knobs+ , terrible shape, FC=2.0 FC=2.4*

Cutting Notes: nice seed

Chieftain-Round Red. Parentage (Ia1027La1027-18 x La1354). Cross was made and selected at Iowa State University.

Uses: fresh

Strength: uniform shape and size uniform size and shape, high tuber number+, parent for high yield and high tuber number,

Weakness: low yield, buff skin, attached stolons+, darker pink eyes, red eyes, some skin color variation
FC=1.0 FC=1.0

Cutting Notes:

CO09076-3RU-Oblong Russet. Parentage (CO03380-2RU x CO03202-1RU). Cross was made and selected in Colorado. Medium maturity. Large vine size. White flower color.

Uses: fresh

Strength: good number+

Weakness: few tuber number, misshapen, knobs, skinny+, pointed, knobs, heat sprouts tuber number, deformed and some rotten, pointed++, knobs+, thin tubers, heat sprouts+ chain tubers, bad shape, mostly culls, bottle shaped, many rotten+

Cutting Notes:

CO09128-5W/Y-Round White/Yellow. Parentage (A00293-2Y x CO03060-2W/Y). Cross was made and selected in Colorado. Early maturity. Medium small vine size. White flower color.

Uses: fresh

Strength: uniform size, uniform shape, small, nice, uniform size, high tuber number all smalls++, parent for smalls, uniform size and shape

Weakness: scab, low tuber numbers++, sprouts, FC=4.3,FC=3.8

Cutting Notes: very intense yellow flesh

CO09205-2RU-Oblong Russet. Parentage (AOA95154-1 x CO95086-8RU). Cross was made and selected in Colorado.

Uses: dual

Strength: nice skin, nice russet skin

Weakness: few tubers, small smaller, heat sprouts+ chain tubers+ and few tubers+, knobs

Cutting Notes:

CO09218-4W/Y-Oval White/Yellow. Parentage (ATC00293-1W/Y x CO00412-5W/Y). Cross was made and selected in Colorado. Late maturity. Large vine size. White flower color.

Uses: fresh

Strength: snaps+

Weakness: heat sprouts+, knobs+, attached stolons, very small, very few tubers, pointed, pears, terrible chained tubers, very few tubers++, late, heat sprouts+++, low tuber number, pointy, DROP+, FC=3.7, FC=4.

Cutting Notes: a little flat, very intense yellow flesh, medium size, good dormancy, parent CO10064-1W/Y-Round White/Yellow. Parentage (CO00412-5W/Y x CO04099-4W/Y). Cross was made and selected in Colorado. Medium maturity. Large vine size. Purple flower color.

Uses: fresh

Strength: high tuber set, small, high tuber numbers, all smalls

Weakness: heat sprouts++, angular tubers, nonuniform skin type, FC=3.4, FC=2.

Cutting Notes: intense yellow flesh, parent

CO10073-7W-Round White. Parentage (CO02321-4W x CO02024-9W). Cross was made and selected in Colorado. Late maturity. Large vine size. White flower color.

Uses: chip

Strength: uniform, nice shape, size, and skin

Weakness: FC=1.0green heads greens/rot, some large

Chip Notes: CR=1.4, 88% Good chip, 1 vas, 1 bruise, 3 se1

CO10076-4W-Round White. Parentage (CO03243-3W x CO02024-9W). Cross was made and selected in Colorado. Medium maturity. Medium small vine size. White flower color.

Uses: chip

Strength:

Weakness: attached stolons, small, FC=1.0

Chip Notes: CR=1.6, 83% Good chip, 1 bruise, 3 vas, 1 ihn, 1 se2

Cutting Notes:

CO10085-1RU-Parentage (CO03364-5RU x Silverton Russet). Cross was made and selected in Colorado. Medium-late maturity. Medium vine size.

Uses: fresh

Strength: high tuber number++, good skin,

Weakness: different shapes and sizes knob late+ and many chain tubers+ and heat sprouts++, round shape and non-uniform size, lots of culls, drops++ many smalls+, oval, heat sprouts, chained tubers, knobs, bad shape

Cutting Notes:

CO10087-4RU-Long Oblong Russet. Parentage (CO03367-1RU x Mercury Russet). Cross was made and selected in Colorado. Early maturity. Medium vine size. White flower color.

Uses: fresh

Strength: nice skin, good shape+, golden russet skin good tuber number+ and skin color nice shape, nice russet skin+

Weakness: very few tubers lower russet number, chain tubers, heat sprouts+, knobs, sprouts, light skin, a little flat

Cutting Notes:

CO10091-1RU-Oblong Russet. Parentage (CO03371-4RU CO98067-7RU). Cross was made and selected in Colorado. Medium maturity. Medium vine size. White flower color.

Uses: fresh

Strength: good tuber number nice shape, uniform shape and size

Weakness: very low yield, small shape, knobs with chain tubers, roundish different shapes and rots, alligator skin, very low tuber number, weird russet pattern, not uniform russet skin, heavy russet skin

Cutting Notes:

CO10097-2W/Y-Round White. Parentage (CO04067-10W/Y x CO00412-5W/Y). Cross was made and selected in Colorado. Medium maturity. Medium vine size. White flower color.

Uses: fresh

Strength: uniform size,

Weakness: angular tubers, it looks like a chipper, russet skin, different market group, buff skin, small, very few tubers, all smalls some rotten+, extremely low tuber number++, FC=3.8, FC=3.

Cutting Notes:

CO10098-5W/Y-Oblong White/Yellow. Parentage (CO04099-3W/Y x CO04099-4W/Y). Cross was made and selected in Colorado. Medium maturity. Medium vine size. Red purple flower color.

Uses: fresh

Strength: yellow flesh very intense flesh color beautiful flesh parent for color very intense dark yellow flesh

Weakness: heat sprouts+++extreme knobs++, terrible, very intense yellow flesh, small, low tuber number, heat sprouts late, heat sprouts+++, DROP+++, FC=4.4,FC=4.

Cutting Notes: almost orange flesh color

CO11009-3RU-Russet. Parentage (Fortress Russet x AC96052-1RU). Cross was made and selected in Colorado. Medium maturity. Large vine size.

Uses: process

Strength: good skin good number

Weakness: dark skin, misshapen+, pointed+ low tuber number++ knobs++ heat sprouts+ and chain tubers+ shape issues skinny tubers, some very long tubers and pointy, 50% with soft stolon ends, good shape and size, 20 % with soft stolon end

Cutting Notes:

CO11023-2W-White. Parentage (AC03433-1W x NY138). Cross was made and selected in Colorado. Medium maturity. Medium vine size.

Uses: chip

Strength: nice BOT

Weakness: non-uniform size FC=1.0

Chip Notes: CR=1.3, 86% Good chip, nice, 3 ihh, 2 gh, 1 ihh

Cutting Notes:

CO11023-9W-White. Parentage (AC03433-1W x NY138). Cross was made and selected in Colorado. Late maturity. Medium-large vine size.

Uses: chip

Strength:

Weakness: FC=1.0

Chip Notes: CR=1.1, 82% Good chip, 1 bruise, 4 bruise, 1 ihh , 1 se1

Cutting Notes:

CO11037-5W-Oval White. Parentage (BC0894-2W x W2133-1). Cross was made and selected in Colorado. Medium maturity. Medium-large vine size.

Uses: chip

Strength:

Weakness: small, knobs, shape issues, bad shape, drop, FC=1.0

Chip Notes: CR=1.8, 65% Good chip, 4 ihh, 3 vas, 2 sugar, 4 bruise, 1 se2

Cutting Notes:

CO11250-1W/Y-Round White. Parentage (CO99045-1W/Y x POR02PG26-5). Cross was made and selected in Colorado. Large maturity. Medium-late vine size.

Uses: fresh

Strength: high tuber number, small+++,

Weakness: pink eyes+++ , knobs, oval, pears, late++, pink splash, red eye splash heat sprouts, linked tubers, pink eyes++, FC=3.1, FC=3.6

Cutting Notes: a little flat, oblong, intense yellow flesh

CO11266-1W/Y-White Parentage (CO03060-2W/Y x A99433-5Y). Cross was made and selected in Colorado. Late maturity. Medium vine size.

Uses: fresh

Strength: very intense yellow flesh

Weakness: late, oval, heat sprouts++, pink eyes+++, pink splashed skin, knobs, chained tubers, small, non-uniform shape, pears, pink eyes+, attached stolons, DROP, FC=3.9FC=3.5

Cutting Notes: pink eyes, intense yellow flesh

COTX04050s-1P/P-Oblong Purple/Purple. Parentage (CO97215-2P/P x CO97306-2P/P). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: uniform size, very dark skin, white flesh, small parent, very uniform shape and size,

Weakness: look dirty, rot++, angular, dirty, mixed flesh, marble flesh, rough skin, heat sprouts++, ugly skin, mixed, drop+++, attached stolons+, small, MIXED flesh color white and purple+, some rotten, white lenticels FC=4.5,FC=4.0

Cutting Notes: intense purple flesh, some variation in flesh color

COTX04193s-2R/Y-Oblong Red/Yellow. Parentage (ATC98515-1R/Y x ND3574-5R). Cross was made in Colorado and selected in Texas. Medium-early maturity. Small vine size.

Uses: fresh

Strength: medium, uniformly small uniform size and shape, nice+, all small, intense yellow flesh+, mango yellow flesh, BOT

Weakness: some green heads, rot, oval shape, some large tubers, very few tubers, heat sprouts, mixed white and yellow flesh, , FC=4.0, FC=4.0

Cutting Notes: intense flesh color, Kelly has dropped

COTX05095-2Ru/Y-Long Russet/Yellow. Parentage (CO99045-1W/Y x AO96164-1). Cross was made in Colorado and selected in Texas. Medium maturity. Medium vine size. White flower color.

Uses: fresh

Strength: parent for flesh color, very nice shape, blocky, light skin, small-medium, yellow flesh+, golden skin yellow flesh,

Weakness: non-uniform shape and size, knobs, heat sprouts+, smaller, rotten, roundish++ low tuber number+, irregular shape, alligator skin+, drop DROP

Cutting Notes:

COTX08039-1R/R-Oblong Red/Red. Parentage (CO03031-2R/R x POR01PG22-1). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: uniform size parent

Weakness: red flesh, brain flesh, some rotten, very dark skin, dislike appearance, non-uniform flesh color, dotted flesh, high tuber number, ugly, red-purple skin, uneven skin color, ugly, uneven pigment distribution in flesh, DROP+++, FC=4.0

Cutting Notes:

COTX08063-2Ru-Russet. Parentage (A93157-6LS x A99073-1). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: good tuber number++ good size high tuber number clean, nice shape and size+, advance, BOT

Weakness: skinny+, pointed+, some long, small, very light skin+, small-medium, irregular shapes and chain tubers+ with a few heat sprouts, rots knobs+ heat sprouts DROP+

Cutting Notes:

COTX08322-10Ru-Oblong Russet. Parentage (Blazer Russet x AC96052-1RU). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: nice, bulky+, advance, prepare PVP, very high tuber number, snow white, nice shape, good tuber numbers+, round and big tubers few heat sprouts blocky, nice shape, nice russet skin+, BOT+++

Weakness: chain tubers+++ not uniform shape and size, low tuber number and knobs+, small size and shape and irregular skin, ZC 10%, drop

Cutting Notes:

COTX09022-3Rure/Y-Oblong Red Eye Russet/Yellow. Parentage (A00286-3Y x CO99100-1RU) Cross was made in Colorado and selected in Texas. Medium early. Large vine size. White flower color.

Uses: fresh

Strength: round to oval+, unique pattern+, strong short round, smaller and few heat sprouts pink eyes+, nice yellow flesh

Weakness: fewer number tubers knobs, FC=3.

Cutting Notes: sprouting, intense yellow flesh

COTX10012-1Ryspl/Y-Round White Red Splash/Yellow. Parentage (A00286-3Y x ATC00293-1W/Y). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: intense yellow flesh, unique skin pattern, uniform size, uniform shape

Weakness: FC=3.9

Cutting Notes:

Cutting Notes:

COTX10080-2Ru-Long Russet. Parentage (CO03364-5RU x CO98067-7RU). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: blocky+, very nice+, medium size good number knobs+ medium size good shape, nice russet skin, parent for yield, clean, excellent rep, nice shape and size nice skin, heavy russet nice russetting, nice shape, medium size, uniform russet skin, nice russet skin some nice shapes, BOT, BOT

Weakness: lower tuber number heat sprouts and rots+, poor skin pattern, chain tubers non-uniform shape, lots of rotten, FC=1.

Cutting Notes: heavy russet skin

COTX10118-4Wpe/Y- Round White Purple Eye Parentage (07S019 x AC03534-2R/Y). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: high tuber set high tuber number

Weakness: lot of rot a little flat, purple eyes+++, mixed skin pattern, drop+++, FC=3.0

Cutting Notes: very intense yellow flesh

COTX10138-15Wpe/Y-White Purple Eye/Yellow. Parentage (AC99329-7PW/Y x AC03534-2R/Y). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: very high tuber number+, uniform, purple eye splash, small

Weakness: some purple eyes, but not all tubers not uniform shape, FC=2.4

Cutting Notes:

COTX12235-2W-Round White. Parentage (AC00206-2W x AC03433-1W). Cross was made in Colorado and selected in Texas.

Uses: chip

Strength: uniform+++, nice, BOT

Weakness: large tubers++, FC=1.0

Chip Notes: CR=1.8, 69% Good chip, 2 bruise, 1 vas, 2 bruise, 7 bruise

Cutting Notes:

COTX12428-1W-Round White. Parentage (MSQ070-1 x CO02024-9W). Cross was made in Colorado and selected in Texas.

Uses: chip

Strength: uniform,

Weakness: attached stolons, buff skin, large tubers+, FC=1.0 some large, large+,

Chip Notes: CR=2.3, 41% Good chip, 3 se2, 3 bruise, 4 vas, 1 se2, 2 vas, 1 se2, 2 bruise,

Cutting Notes:

COTX13029-2Ru/Y-Round Russet/Yellow. Parentage (AC06358-2W/Y x CO07039-3RU/Y). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: very intense yellow flesh, parent (cross with Yellow Rose), rocky russet

Weakness: different, round, rocky, FC=4.5

Cutting Notes: round, very intense yellow flesh, unique shape-yellow flesh combination

COTX13230-1W-Round White. Parentage (AC06358-2W/Y x CO07044-3RU/Y). Cross was made in Colorado and selected in Texas.

Uses: chip

Strength: high tuber number, nice skin

Weakness: dirty look FC=1.0

Chip Notes: CR=2.0, 68% Good chip, 1 scab,1 bruise, 1 scab,5 bruise, 1 bs,1 se1,2 bruise, 1 bruise

Cutting Notes:

COTX13231-1W-Round White. Parentage (AC98016-6W x Wischip). Cross was made in Colorado and selected in Texas.

Uses: chip

Strength: uniform+, nice small, uniform

Weakness: , mixed flesh FC=1.0

Chip Notes: CR=1.3, 79% Good chip, 1 bruise,3 ihh, nice, 5 bruise

Cutting Notes:

COTX13231-4W-Round White. Parentage (AC98016-6W x Wischip). Cross was made in Colorado and selected in Texas.

Uses: chip

Strength:

Weakness: FC=1.0

Chip Notes: CR=1.5, 85% Good chip, 2 se1, 1 se1, 2 bruise,1 vas,

Cutting Notes:

COTX13231-5W-Round White. Parentage (AC98016-6W x Wischip). Cross was made in Colorado and selected in Texas.

Uses: chip

Strength: high tuber number

Weakness: angular tubers, large tubers bad shape, FC=1.0

Chip Notes: CR=1.6, 59% Good chip, 1 vas,1 ibs,1 ihh, 6 ihh,2 bruise, 1 bruise, 3 vas

Cutting Notes:

COTX13263-2W-White. Parentage (CO02024-9W x Wischip). Cross was made in Colorado and selected in Texas.

Uses: chip

Strength:

Weakness: Dropped at Dalhart cutting

Chip Notes:

Cutting Notes: a little flat

COTX14016-1Ru-Oblong Russet. Parentage (Payette Russet x Pomerelle Russet). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: nice, bulky

Weakness: short+, blocky few tubers, FC=1.5

Cutting Notes:

COTX14132-1Ru-Long Russet. Parentage (POR06V12-3 x AC05039-2RU). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: high tuber number ++, high tuber number++, nice skin good russet skin dark brown+, parent for yield, clean some large bulky tubers+ BOT

Weakness: dark healing, ZC 10%, large, angular+, large knobs+ DROP, long, poor shape, chain tubers+ and few rots, shape issues, bad number with heat sprouts, angular tubers+, heals dark 10%, soft rot (stolon end) drop, FC=1.2

Cutting Notes: nice skin, heals black

COTX15083-1R-Red. Parentage (CO01198-2R x NDA050237B-1R). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX15111-1R-Red. Parentage (CO05228-4R x ND8555-8R). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX15111-3R-Red. Parentage (CO05228-4R x ND8555-8R). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX15123-1Ru-Russet. Parentage (CO07205-4RU x A06021-1T). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX15123-2Ru-Russet. Parentage (CO07205-4RU x A06021-1T). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX15123-3Ru-Russet. Parentage (CO07205-4RU x A06021-1T). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX15169-1Ru-Russet. Parentage (CO09139-7RU x A06021-1T). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX15169-2Ru-Russet. Parentage (CO09139-7RU x A06021-1T). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX15182-2Ru-Russet. Parentage (CO09278-2RU x A06021-1T). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX15271-1Ru-Russet. Parentage (A03921-2 x Mercury Russet). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength: high tuber number+,

Weakness: knobs and chain tubers, not uniform russet skin pointed+, short, ZC 20%, angular+, bad shape, FC=1.0

Cutting Notes: nice size and shape, KEEP

COTX15345-1Y/Y-Round Yellow/Yellow. Parentage (CO05037-3W/Y x CO00412-5W/Y). Cross was made in Colorado and selected in Texas.

Uses: chip

Strength: uniform, nice, beautiful skin, nice+

Weakness: FC=3.0

Chip Notes: CR=2.3, 63% Good chip, 1 vas, 2 bruise, 2 bruise, 1 se1,1 ihh

Cutting Notes: very intense yellow flesh

COTX15425-1Y/Y-Round Yellow/Yellow. Parentage (CO10003-3W/Y x CO10018-3W/Y). Cross was made in Colorado and selected in Texas.

Uses: chip

Strength:

Weakness: buff skin, FC=3.0

Chip Notes: CR=1.5, 83% Good chip, 1 bruise,1 se1, 1 bruise,2 vas, 2 bruise

Cutting Notes:

COTX15500-2Ryspl/Y-Red Splash/Yellow. Parentage (CO10097-2W/Y x CO10018-3W/Y). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness: Dropped at Dalhart cutting

Chip Notes:

Cutting Notes:

COTX16005-1Ru-Russet. Parentage (A03921-2 x Classic Russet). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX16013-5W-White. Parentage (AC00206-2W x AC03433-1W). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX16054-1Ru-Russet. Parentage (CO07070-13W x AC03433-1W). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX16078-2W-White. Parentage (CO10032-8W x Wischip). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX16078-4W-White. Parentage (CO10032-8W x Wischip). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX16209-1Ru-Russet. Parentage (CO09076-3RU x CO07049-1RU). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX16212-2Y/Y-Yellow/Yellow. Parentage (CO09128-3W/Y x CO09128-5W/Y). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

COTX16217-2Ru-Russet. Parentage (CO09337-1RU x OR05039-4). Cross was made in Colorado and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

Dal17001RuRua-Oblong Russet. Parentage (??).

Uses: fresh

Strength: nice shape, nice skin, medium,

Weakness: FC=1.0

Cutting Notes: nice, great shape, KEEP

Dal17001RuRub-Oblong Russet. Parentage (??).

Uses: fresh

Strength: nice shape, nice skin+,

Weakness: FC=1.0

Cutting Notes:

NDTX059759-3RY/Y Pinto-Oblong Red Pinto/Yellow. Parentage (ATND 99331-2 Pinto x ND 7834-2P). Cross was made in North Dakota and selected in Texas.

Uses: fresh

Strength: nice skin pattern++, shiny clean skin, large tubers, few eyes+, very nice tubers, smooth skin, beautiful skin pattern+, prepare PVP dossier BOT

Weakness: low tuber set, few tubers, flat+, moderate tuber set , flat+++, pink streaks 40%, FC=3.2, FC=3.0

Cutting Notes: pink streaks in flesh, 50 %

NDTX059828-2WZC-Oblong White. Parentage (ND 4659-5R x ND 8524B-1R). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength: ZC tolerant

Weakness: Dropped at Dalhart cutting,

Chip Notes: CR=3.0, 20% Good chip

Cutting Notes: parent of zc tolerant clones

NDTX081451CBs-1Y/Y-Oblong Yellow/Yellow. Parentage (Dakota Diamond x Gala) Cross was made in North Dakota and selected in Texas. Late maturity. Large vine size. White flower color.

Uses: fresh

Strength: small, smooth skin+ small-medium+, uniform size and shape+, small, high tuber number,

Weakness: a little flat, heat sprouts, knobs, low tuber number, drop, FC=3.0, FC=2.5

Cutting Notes: nice, parent

NDTX092237C-2P/W-Oblong White. Parentage (ND 049326C-2P x ND 7834-2P). Cross was made in North Dakota and selected in Texas.

Uses: fresh

Strength: white lenticels+, surprise white-purple flesh+++ , very large, large, strong, high tuber number, nice, cool,

Weakness: FC=1.0

Cutting Notes: white flesh with purple splashes

NDTX113030C-3W-Oblong White. Parentage (Dakota Diamond x ND7192-1). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength: high tuber number

Weakness: pointed, pear shape, large tubers+, FC=1.0large+, DROP, a little flat+

Chip Notes: CR=1.8, 63% Good chip, 1 bruise, 2 vas,1 bruise, 2 vas,2 ihn, 3 se2,2 bruise,2 ihn

Cutting Notes:

NDTX12135-1W-Round White. Parentage (ND8559-20 x M3). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength: uniform

Weakness: large tubers+, mixed? (some russets), a little flat, FC=1.

Chip Notes: CR=2.3, 70% Good chip, 2 scab, 1 se1, 4 ibs, 1 bruise, 1 bs

Cutting Notes:

NDTX12203AB-1W-Round White. Parentage (ND028598c-1 x M2). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength: high tuber number BOT,

Weakness: large tubers+, rough skin, FC=1.0

Chip Notes: CR=1.2, 83% Good chip, 3 vas, 3 bruise, 1 bruise

Cutting Notes: nice skin, uniform size and shape

NDTX12248Y-1R-Red. Parentage (95043.11 x Dakota Ruby). Cross was made in North Dakota and selected in Texas.

Uses: fresh

Strength: Red LaSoda replacement, shallower eyes, similar skin color, nice, medium to large, parent, cross with smooth skin: shallow eyes, medium size, uniform size and shape, very light skin+, bright light color, nice, light skin

Weakness: medium red skin color, red eyes dark red eyes, scab, silver scurf, FC=1.0, FC=1.0

Cutting Notes:

NDTX1244-3W/Y-Round White. Parentage (AND07358-1Y x ND7192-1). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength: high tuber number++,

Weakness: FC=1.9,

Chip Notes: CR=1.2, 93%, Good chip, nice, 2 vas, 1 bruise

Cutting Notes:

NDTX1246-5W/Y-Oval White. Parentage (AND07358-1Y x ND8304-2). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength:

Weakness: large tubers+, dirty look, angular tubers, FC=2.2

Chip Notes: CR=1.5, 70% Good chip, 3 se2,1 vas, 1 bruise,1 se1, 3 bruise, 2 bruise,1 ihn

Cutting Notes:

NDTX13280CB-3W-Oval White. Parentage (ND081452CB-1 x ND7519-1). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength: smooth skin, small

Weakness: mixed flesh color+, DROP, FC=1.0

Chip Notes: CR=1.2, 84% Good chip, 2 scab, 1 se1, 1 gh,1 se1, 1 se1, 1 bruise CR=1.8, 75% Good chip, Shape-, DROP?

Cutting Notes: nice

NDTX13315CB-1W-Round White. Parentage (ND092181CB-16 x ND7519-1). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength: small++, uniform+, nice shape

Weakness: FC=1.0,

Chip Notes: CR=1.5, 70% Good chip, 1 vas,1 bruise, 1 ihn,1 gh, 1 vas,1 bruise, 3 vas,3 bruise

Cutting Notes:

NDTX14134Y-3W-White. Parentage (Waneta x ND860-2). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength:

Weakness: Dropped at Dalhart cutting

Cutting Notes:

NDTX14156-1R/Y-Red/Yellow. Parentage (ATND99331-2PintoY x ND028742b-12PEY). Cross was made in North Dakota and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

NDTX14156-2R/Y-Red/Yellow. Parentage (ATND99331-2PintoY x ND028742b-12PEY). Cross was made in North Dakota and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

NDTX14156-3P-Purple. Parentage (ATND99331-2PintoY x ND028742b-12PEY). Cross was made in North Dakota and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

NDTX14247CAB-1W-White Parentage (ND028799C-3 x ND102809AB-2). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength:

Weakness:

Cutting Notes:

NDTX14247CAB-2W-White. Parentage (ND028799C-3 x ND102809AB-2). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength:

Weakness:

Cutting Notes:

NDTX14252B-2W-White. Parentage (ND028888cB-1 x ND860-2). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength:

Weakness:

Cutting Notes:

NDTX14263BC-3W-White. Parentage (ND028984B-1 x ND113306C-2). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength:

Weakness:

Cutting Notes:

NDTX1432Y-2Y/Y-Round Yellow/Yellow. Parentage (93057.1 x ND7799c-1). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength: nice,

Weakness: large tubers, dirty look, FC=2.3

Chip Notes: CR=1.5, 72% Good chip, 1 se1,1 bruise, 1 bruise,1 se1, 2 bruise,3 vas, 1 bruise,1 vas

Cutting Notes:

NDTX14362AB-1W-Round White. Parentage (ND102809AB-2 x ND028984B-1). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength: small, high tuber number, nice,

Weakness: heat sprouts, very light-yellow flesh, FC=1.0

Chip Notes: CR=1.2, 86% Good chip, nice, 1 bruise, 2 se1, 2 bruise

Cutting Notes:

NDTX1443-2W-White. Parentage (Dakota Crisp x ND860-2). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength:

Weakness: Dropped at Dalhart cutting.

Cutting Notes:

NDTX1444-3W-White. Parentage (Dakota Crisp x ND7799c-1). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength:

Weakness: Dropped at Dalhart cutting.

Cutting Notes:

NDTX1444-4W-White. Parentage (Dakota Crisp x ND7799c-1). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength:

Weakness: Dropped at Dalhart cutting.

Cutting Notes:

NDTX1444-5W-Round White. Parentage (Dakota Crisp x ND7799c-1). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength: uniform, nice size+, medium size, small, uniform, nice skin, uniform,

Weakness: FC=1.0

Chip Notes: CR=1.3, 85% Good chip, nice, 1 vas, 2 bruise, 1 vas, 1 bruise, 1 bs

Cutting Notes:

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NDTX1467C-1R-Round Red. Parentage (Dakota Ruby x ND113300C-3RSY). Cross was made in North Dakota and selected in Texas.

Uses: fresh

Strength: small, uniform size, uniform shape

Weakness: silver scurf, DROP, FC=1.0

Cutting Notes:

NDTX1482YB-1W-Round White. Parentage (Eva x Missaukee). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength: high tuber number,

Weakness: dirty look, large tubers+, FC=1.0

Chip Notes: CR=1.4, 84% Good chip, 1 ihn, 1 se2, 1 gh, 1 vas, nice, 2 vas

Cutting Notes:

NDTX1488-1Y-Round White. Parentage (Gala x ND860-2). Cross was made in North Dakota and selected in Texas.

Uses: chip

Strength:

Weakness: attached stolons, angular tubers, FC=2.0

Chip Notes: CR=2.3, 60% Good chip, 2 vas, 1 bruise, 1 ihn, 3 ihn, 1 bruise, 3 bruise, 3 se2, 2 ihn

Cutting Notes:

NDTX4784-7R-Round Red. Parentage (ND3574-5R x ND2050-1R). Cross was made in North Dakota and selected in Texas. Early maturity. Medium vine size. Lavender flower color.

Uses: fresh

Strength: intense red skin color+, good size, nice skin, early medium size, parent, cross with smooth skin, Red LaSoda replacement??, BOT

Weakness: knobs, road map, FC=1.0, FC=1.0

Cutting Notes: intense skin color

OR12133-10-Oblong-long Russet. Parentage (A98345-10 x Silverton Russet) Cross was made and selected in Oregon. Medium-early maturity. Large vine size. White flower color.

Uses: dual

Strength: nice, high tuber number+, nice long+

Weakness: very light skin+++ , skinny+, misshapen, ZC 20% skinny++ long heat sprouts+++ light russet, too light, pointed++, curvy shape, light skin uneven shape

Cutting Notes:

POR12NCK50-1-Oblong Russet. Parentage (PA99N82-4 x Western Russet). Cross was made in Prosser, WA, tuberling grown and selected in Oregon. Medium maturity. Large vine size. Lavender-Purple flower color.

Uses: dual

Strength: medium, good shape, high tuber number, high tuber number+++ , good russet skin

Weakness: skinny chain tubers++ and knobs++ heat sprouts++ poor skin, irregular shape angular+

Cutting Notes:

POR14PG22-3-White. Parentage (??). Cross was made in Prosser, WA, tuberling grown and selected Oregon in Texas.

Uses: fresh.

Strength: very smooth skin++, very light skin color+, very clean look, shiny, high tuber high tuber number+, set,

Weakness: angular tubers, very small+, heat sprouts+++ , small late, compressed shape non-uniform size+, heat sprouts+++ , linked tubers++ , back scurf, FC=2.0,FC=1.8

Cutting Notes:

PORTX03PG25-2R/R-Round Oblong Red/Red. Parentage (PA97B35-1 x PA99P7-2). Cross was made in Prosser, WA, tuberling grown in Oregon and selected in Texas.

Uses: fresh.

Strength: uniform size, uniform shape, prepare PVP dossier, fingerling, intense skin color, nice medium size, intense skin color,

Weakness: some rot, pointed, some protruding eyes, flesh much lighter than other years, rot, not as nice as other years, FC=3.4FC=3.7

Cutting Notes:

Ranger Russet-Long Russet. Parentage (Butte x A6595-3). Cross was made and selected in Idaho. Released in 1991 by USDA-ARS, and the Colorado, Idaho, Oregon and Washington Agricultural Experiment Stations. Medium-late maturity. Large vine size. White flower color.

Uses: fresh

Strength: high tuber number good tuber number

Weakness: deep eyes, rugged+, pointed knobs+++ heat sprouts and chain tubers++, skinny tubers and rots, irregular shape, rough moon shapes

Cutting Notes:

Red LaSoda-Oblong Red. Parentage (Triumph x Katahdin). Cross was made and selected in Louisiana. Red LaSoda is a clonal selection from LaSoda made by Louisiana State University. Medium maturity. Medium-large vine size. Purple flower color.

Uses: fresh

Strength: very high tuber number, parent for tuber number and yield++, high tuber number

Weakness: deep eyes+++, non-uniform shape, many culls (knobs), large, some large, rot, deep eyes, attached stolons, a little flat, FC=1.0, FC=1.

Cutting Notes: Rhizoctonia

Reveille Russet-Oblong Russet. Parentage (A81473-2 x A8343-12) Cross was made in Idaho and selected in Texas. Medium maturity. Medium vine size. Lavender flower color.

Uses: fresh

Strength: impressive high tuber number, excellent shape, very nice shape+, BOT+, nice skin, nice shape, uniform size nice russet skin, nice shape and size, good shape, skinning, good yield and size few chain tubers, large tubers, nice, BOT++++

Weakness: some rotten

Cutting Notes:

Russet Burbank-Long Russet. Luther Burbank reported the origin of Russet Burbank in 1914 as a chimeric selection from the variety Burbank by Lou Sweet. Lou Sweet was a potato grower in the western slope area of Colorado and was President of the Potato Association of America in 1920. Late maturity. Large vine size. White flower color.

Uses: fresh

Strength: high tuber number, good number medium russet skin

Weakness: knobs++, bad shape++, skinny, misshapen+, ugly, soft rotten stolon ends, many eyes, pointed, dislike shape, many knobs+, terrible shape, misshapen skinny, heat sprouts++ and knobs++, skin set, medium tuber growth chain tubers++, shape issues and pointy, all culls, linked tubers++, +, deformed tubers++FC=1.0knobs+++, pointy++, skinny, growth cracks, deformed tubers, skinny, curved

Cutting Notes:

Russet Norkotah223-Oblong-Long Russet. Parentage (ND95264Ru x ND9687-5Ru). Russet Norkotah cross was made and selected in North Dakota. Russet Norkotah 278 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity. Medium vine size. White flower color.

Uses: fresh

Strength: nice shape and skin,

Weakness: FC=1.0

Cutting Notes:

Cutting Notes: soft rot ends

Russet Norkotah278-Oblong-Long Russet. Parentage (ND95264Ru x ND9687-5Ru). Russet Norkotah cross was made and selected in North Dakota. Russet Norkotah 278 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity. Medium vine size. White flower color.

Uses: fresh

Strength: nice shape and skin+++ , large many tubers good skin

Weakness: a little pointed, low tuber number+ heat sprouts+ and knobs+, rots, very few tubers FC=1.

Cutting Notes: nice shape,

Russet Norkotah296-Oblong-Long Russet. Parentage (ND95264Ru x ND9687-5Ru). Russet Norkotah ross was made and selected in North Dakota. Russet Norkotah 296 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity. Medium vine size. White flower color.

Uses: fresh

Strength: nice shape

Weakness: long tubers++, skinny++, smaller profile, curved tubers, low tuber number+, knobs+ and chain tubers++, nice skin, heat sprouts+, FC=1.0

Cutting Notes: nice shape

Russet Norkotah-Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross was made and selected in North Dakota. Released in 1987 by the North Dakota Agricultural Experiment Station. Early-medium maturity. Medium vine size. Corolla is white, and anthers are yellow orange.

Uses: fresh

Strength: good skin and shape+, impressive high tuber number, nice shape and size+

Weakness: some misshapen+, many eyes small, pointy, heat sprouts++, number chain tubers+ knobs, lesser number and bad type

Cutting Notes:

Shepody-Long White. Parentage (Bake King x F58050). Selected in New Brunswick, Canada and released by Agriculture Canada, New Brunswick in 1980. Medium-late maturity. Medium vine size. Light violet flower color with white tips.

Uses: dual

Strength: high tuber number++, smooth skin, light skin++, large, smooth skin++

Weakness: heat sprouts, knobs+++ , light skin++, ugly, bad shape, non-uniform shape, deformed tubers, misshapen rotten++, long tubers, heat sprouts++ and pointy+, light skin, sprouting, poor shape, low tuber number, medium number knobs++knobs, not uniform shaped

Cutting Notes:

Sierra Gold-Round-Oblong Russet /Yellow. Parentage (Krantz x Delta Gold). Cross was made and selected in Texas. Early maturity. Medium vine size.

Uses: fresh

Strength: very nice, large+, parent, nice tubers, BOT, nice, high yield, medium uniform tubers, uniform size, russet, nice++, golden+, attractive

Weakness: very few tubers, rot, low tuber number++, FC=2.0, FC=3.0

Cutting Notes: parent

Sierra Rose-Oblong Red/Yellow. Parentage (A90601-2RDY X Mazama). Cross was made in Idaho, tuberling produced in Texas, and selected in Texas. Early maturity. Medium vine size. Purple flower color.

Uses: fresh

Strength: large tubers, high tuber number+, nice, BOT,

Weakness: small, low tuber set, heat sprouts, road mapping, very few tubers, variation in shape, silver scurf, scab, FC=3.0, FC=2.5

Cutting Notes: nice

Snowden-Oblong White. Parentage (B5141-6 x Wischip). Cross was made and selected at the University of Wisconsin. Medium-late maturity. Large vine size. White flower color.

Uses: chip

Strength: beautiful skin+, BOT

Weakness: flat, attached stolons, angular tubers FC=1.0, some attached stolons+, rough looks

Chip Notes: , CR=1.7, CR=1.3, 70% Good chip, 84% Good chip, 1 se1,2 bruise, 2 se1,1 bruise, 1 ihn,1 se1, 3 se1,1 ihn 1 ihn,1 se2, 1 gh, 1 vas, nice, 2 vas

Cutting Notes:

TACNA-Oval Red. Parentage (720087 x 386287.1). Clone was bred in Peru. Early maturity.

Uses: fresh

Strength:

Weakness: pointed, knobs, terrible, red skin, pointed, FC=1.0

Vanguard Russet(Vanguard Russet)-Long Russet. Parentage (TXA549-1Ru x AOTX98137-1RU). Cross was made and selected in Texas.

Uses: fresh

Strength: smaller than reveille, good tubers+, wide, snow-white flesh, high tuber no, BOT

Weakness: chain tubers+ and heat sprouts+, lesser number and poor shape, nice, short tubers

Cutting Notes:

TX09403-15W-Round White. Parentage (NY138 x Ivory Crisp) Cross was made and selected in Texas.

Uses: chip

Strength: uniform, high tuber number+, tissue culture, parent, nice shape and skin BOT+++

Weakness: large tubers++

Chip Notes: CR=1.4, 73% Good chip, 2 se1, 3 vas, 4 se1, 1 bruise, 1 bruise

Cutting Notes:

TX09403-21W-Round White. Parentage (NY138 x Ivory Crisp) Cross was made and selected in Texas.

Uses: chip

Strength: tissue culture, parent, uniform, BOT+++

Weakness: large tubers, FC=1.0

Chip Notes: CR=1.6, 83% Good chip, 3 ihn, 2 vas, nice+, 2 se1

Cutting Notes:

TX12484-2WZC-Round White. Parentage (TX08402 x NDTX059828-2W). Cross was made and selected in Texas.

Uses: chip

Strength:

Weakness: FC=1.

Chip Notes: CR=1.4, 82% Good chip, 2 vas, 4 vas, 1 vas, 1 gh

Cutting Notes:

TX12484-3WZC-Oblong White. Parentage (TX08402 x NDTX059828-2W). Cross was made and selected in Texas.

Uses: chip

Strength:

Weakness: Compressed pinkish skin+, angular tubers+, FC=1.0

Chip Notes: CR=2.1, 51, % Good chip, 2 se2, 2 bruise, 1 ihn, 1 scab, 3 bruise, 4 bruise, 1 se2, 3 vas, 3 bruise

Cutting Notes: long sprouts

TX13590-9Ru-Oblong Russet. Parentage (ND9687-3Ru x ND9852-1Ru). Cross was made and selected in Texas.

Uses: fresh

Strength: high tuber number+ large bulky, nice skin, good shape blocky+, nice, very nice,

Weakness: heat sprouts, chain tubers a little short+, FC=1.

Cutting Notes: hollow heart small

TX14646-1W-R/YPinto-Oval White Red/Yellow Pinto. Parentage (NDTX059759-3Pinto x BTX2332-1R). Cross was made and selected in Texas.

Uses: fresh

Strength: nice skin pattern+, good skin nice, large, high tuber number+++ , medium-large tubers, nice+, , large, parent: cross with Harlequin

Weakness: low tubers set++, flat, pink flesh, yellow pink flesh+++ , pink/yellow flesh yellow-pink flesh++, FC=3.0FC=3.

Cutting Notes: consider entering in tissue culture as parent and drop from trials

TX14668-3WZC-Oval White. Parentage (Waneta x ATTX07042-3W). Cross was made and selected in Texas.

Uses: chip

Strength:

Weakness: flat, FC=1.0,

Chip Notes: CR=1.2, 85% Good chip, 2 vas, 3 vas, nice, 1 sel

Cutting Notes: big tubers

TX17713-2R-Red. Parentage (BTX2332-1R x ATTX98465-1R/Y). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17714-4R-Red. Parentage (AOTX93483-1R x NDTX05977s-1W). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17733-1R-Red. Parentage (NDTX059761-1R/R x NDTX05977s-1W). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17734-1Y/Y-Yellow/Yellow. Parentage (NDTX05977s-1W x NDA081451CB-1CY). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17734-2W/Y-White/Yellow. Parentage (NDTX05977s-1W x NDA081451CB-1CY). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17742-19R/R-Red/Red. Parentage (ATTX98500-3Pu/Y x NDTX059761-1R/R). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17742-22P/P-Purple/Purple. Parentage (ATTX98500-3Pu/Y x NDTX059761-1R/R). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17742-23P-Purple. Parentage (ATTX98500-3Pu/Y x NDTX059761-1R/R). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17750-1R/R-Red/Red. Parentage (AOTX93483-1R x NDTX059761-1R/R). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17750-8R/R-Red/Red. Parentage (AOTX93483-1R x NDTX059761-1R/R). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17755-2P splash-Purple Splash. Parentage (BTX2332-1R x Gala). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17759-5W-White. Parentage (ATX05202s-3W/Y x TX09396-1W). Cross was made and selected in Texas.

Uses: chip

Strength:

Weakness:

Cutting Notes:

TX17763-2W/Y-White/Yellow. Parentage (ATTX00289-4W x NDTX05977s-1W). Cross was made and selected in Texas.

Uses: chip

Strength:

Weakness:

Cutting Notes:

TX17765-1R/Y-Red/Yellow. Parentage (ATX06264s-4R/Y x Gala). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17773-3R/Y-Red/Yellow. Parentage (ATTX98500-2Pu/Y x NDTX05977s-1W). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17788-4R-Red. Parentage (AOR07783-1 x TX12474-1P/P). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17797-11Y/Y-Yellow/Yellow. Parentage (NDA081451CB-1CY x TX09396-1W). Cross was made and selected in Texas.

Uses: chip

Strength:

Weakness:

Cutting Notes:

TX17802-5R-Red. Parentage (COTX04193s-2R/Y x AOTX93483-1R). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17805-10Y-Ppinto/Y-Purple Pinto/Yellow. Parentage (NDTX059759-3RY/Y x TX12474-1P/P). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17805-12R/R-Red/Red. Parentage (NDTX059759-3RY/Y x TX12474-1P/P). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17805-13R/R-Red/Red. Parentage (NDTX059759-3RY/Y x TX12474-1P/P). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17805-1RWpinto/R-Red Pinto/Red. Parentage (NDTX059759-3RY/Y x TX12474-1P/P). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17805-2R/R-Red/Red. Parentage (NDTX059759-3RY/Y x TX12474-1P/P). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17805-8R/R-Red/Red. Parentage (NDTX059759-3RY/Y x TX12474-1P/P). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17808-2R/Y-Red/Yellow. Parentage (NDTX059759-3RY/Y x ATTX00289-5R/Y). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17815-1P/P-Purple/Purple. Parentage (ATTX98500-2Pu/Y x PORTX03-PG25-2R/R). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17815-4P/P-Purple/Purple. Parentage (ATTX98500-2Pu/Y x PORTX03-PG25-2R/R). Cross was made and selected in Texas.

Uses: fresh

Strength:

Weakness:

Cutting Notes:

TX17846-1W-White. Parentage (CO07070-10W x NDTX091908AB-2W). Cross was made and selected in Texas.

Uses: chip

Strength:

Weakness:

Cutting Notes:

UNICA-White Oval. Parentage (387521.3 x Aphrodite). Clone bred by CIP in Peru.

Uses: fresh

Strength:

Weakness: very long heat sprouts, knobs, terrible, yellow flesh, FC=2.5

Cutting Notes:

Yukon Gold-Oblong White/Yellow. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry of Agriculture and Food, Guelph, Ontario. Medium-early maturity. Medium-large vine size. Violet flower color.

Uses: fresh

Strength: good size, medium, medium size, nice, impressive number of tubers, large tubers+, nice, high tuber number+

Weakness: FC=2.8, FC=2.

Cutting Notes: large tubers

Appendix B. Parentage of potato varieties or selections-2019.

Variety or Selection	Parentage
Ackersegen	Hindenburg x Allerfruheste
Actrice	DENISE x AGATA
Adora	Pimura x Alcmaria
Agria	Quarta x Semlo
Alegria	Divina x 3.169 010-86
All Blue	Unknown
Alpha	Paul Kruger x Preferent
Ambra	Duke of York x Reneta Lub B 43
Asterix	Cardinal x SVP VE 70-9
Atlantic	Wauseon x Lenape
Avalanche	DHS40-1034 9 x Maris Piper
Aziza	Smeenge 69-17 x Smeenge74-5
Baltic Cream	?
Banana	?
Beacon Chipper	??
Bettina	?
Binje	Munstersen x Fransen
Boulder	MS702-80 x NY88
Caesar	Monalisa x Rop B 1176
Carola	
Carrera	
Century	A6789-7 x A6680-5
Chieftain	la1027-18 x La1354
Chipeta	WNC612-13 x Wischip
Climax	Bintje x Record
Courage	
Dakota Jewel	ND2223-8R x ND649-4R
Dark Red Norland	Redkote x ND626

Variety or Selection	Parentage
Day-9	
Delikat	
Desiree	Urgenta x Depesche
Diamante	TDV54-30-8 x SVP55-89
Dore	Duke of York x BiermaA7
Eerstelling	Early Primrose x King Kidney
Eigenheimer	Blaue Riesen x Fransen
Electra	C1992/42 x Picasso
Emma	Colleen x Estima
Estima	
Fabula	
Florissant	Premiere x VK 69-491
Fortress Russet	AWN86514-2 x A89384-10
Fortuna	
Foxton	Irene x Maris Piper
Gasora	?
German Butter Ball	
Golden Sunburst	
Granola	3333 60 x 267 04
Green Mountain	Dunmore x Excelsior
Hertha	Dijkhuis61-133 x Konst62-374
Innovator	Shepody x RZ 84-2580
Irish Crispin	Amigo x DH70-699 3a
Ivory Crisp	ND292-1 x A77268-4
Kalkaska	B1254-1 X S440
Keuka Gold	Steuben x Norwis
King Harry	
Krasaua	Visnovske Rohlic x B53
La Rouge	LaSoda x Progress
Lamoka	NY120 x NY115
Lanorma	Bydand x Caesar
LaRatte	??

Variety or Selection	Parentage
Latona	Jaerla x Nicola
Magic Molly	Open pollinated seed ball from Red Beauty
Maris Piper	
Mazama	ND1196-2R x Redsen
MegaChip	Wischip x FYF85
Merlin	Cara x 93/2
Modoc	ND1196-2R x ND2225-1R
Molli	
Mondial	Spunta x Ve 66-295
Morning Gold	Olinda x Y 68-4-103
Nectar	Famosa x Red Cara
NorDonna	ND206-1R x ND821-6R
Norgold-M	ND2475-8 x A119-1
NorValley	NorChip x ND860-2
Olympus	Atlantic x 12601 ab
Oscar	Desiree x VK 64 491
Ottar	Dore x DsxAS-737
Pacific Russet	NDA8694-3 x Century Russet
Penta	Bellona x Estima
Pimpernel	
Platina	
Premiere	
Primica Inta	
Prince Hairy	Hudson x PI 310925
Purple Majesty	ND2008-2 x All Blue
Purple Peruvian	ND1562-4R x NDTX9-1098-11R
Ranger Russet-	Butte x A6595-3
Red Gold	G68211 x G6521-4RY
Red LaSoda	Triumph x Katahdin
Reveille Russet-	A81473-2 x A8343-12
Rio Rojo	ND1562-4R x NDTX9-1098-11R
Rodeo	Mondial x Bimonda

Variety or Selection	Parentage
Rosara	Secura x 2605 77
Rose Gold	Abnaki x G6521-4RY
Reveille Russet	A81473-2 x A8343-12
Russet Burbank	Mutant from Burbank
Russet Legend	Century Russet x WNC672-2
Russet Norkotah	ND9526-4Ru x ND9687-5Ru
Russet Norkotah112	ND9526-4RU x ND9687-5Ru
Russet Norkotah223	ND9526-4RU x ND9687-5Ru
Russet Norkotah278	ND9526-4RU x ND9687-5Ru
Russet Norkotah296	ND9526-4RU x ND9687-5Ru
Rutt	Laila x Alcmaria
Saginaw Gold	MS321-38 x Michibonne
Sangre	Viking x A6356-9
Sangre10	Viking x A6356-9
Sante	SVPY66-13-636 x AM66-42
Satina	Puntila x 99 73
Shepody	Bake King x F58050
Sierra Gold™	Krantz x Delta Gold
Sierra Rose	A90601-2RDY X MAZAMA
Smiley	?
Snowden	B5141-6 x Wischip
Soraya	?
Sprint	SIRCO x MIN 72-74
Stampede Russet	BR7091-1 x Lemhi Russet
Strobrawa	MPI55 957/54 x Mira
Super Red	
Taisiya-	??
Tebina	?
Ukama	Marijke x Sirtema
Urgenta	Furore x Katahdin
US Blue	?
Valisa	

Variety or Selection	Parentage
Viking	Redskin x Nordak
Vivaldi	TZ 77-148 x Monalisa
Vokal	Primura x Rheinhort
Waneta	??
Winema	Redsen x ND1196-2R
Wendy	??
Yellow Finn	
Yukon Gold	W5279-4 x NorGleam
Numbered Clones	
A07061-6	Targhee Russet x Clearwater Russet
A071012-4BF	A85331-7 x A01054-4
A07769-4	PA01N32-1 x Premier Russet
A08112-7R	A99331-2RY x COA01406-1R
A08422-4VRsto	A96953-13sto x A02618-1adg
A08433-4VR	A01667-3 x AOND95249-1Russ
A10021-5TE	A03921-2 x Mountain Gem Rus
AO02183-2	A98082-17 x Premier R
AOR07781-	PA92A08-17 x PALB03035-6
AORTX09033-11W	CO96141-4W x Ivory Crisp
AORTX09037-1W/Y	Fasan x Ivory Crisp
AORTX09037-4W/Y	Fasan x Ivory Crisp
AORTX09037-5W/Y	Fasan x Ivory Crisp
AORTX11913-3Wre	A03576-5Y x NDA050237B-1R
ATX05175s-1R/Y	A99331-2RY X COA99261-IRY
ATX07042-3W	Western russet EM x A02086-10 EM 500
ATX07230-4Yre/Y	AO0286-3Y y x Modoc red 500
ATX10008-1Ru	A02060-3TE x A05013-5TE
ATX10008-1Ru	A02060-3TE x Stampede Russet
ATX10265-4R/Y	A02267-2PY X US 147-96RIY
ATX10333-1W	AFA3976TPS-1 x NY139
ATX10378-3Ru/Y	Granola x CO00412-5W/Y
ATX10389-1W	Marike x NY139

Variety or Selection	Parentage
ATX11617-2R	US147-96R/Y x ND8555-8R
ATX11633-1RYPinto/Y	Pinto x ND8555-8R
ATX98444s-16R/Y	A83360-9R X T48YF
ATX05202s-3W/Y	A00286-3Y x A99433-5Y
ATX06264s-4R/Y	A99331-2RY x Durango Red
ATX08121-3P/Y	A02267-5PY x CO98012-5R
ATX08121-5R	A02267-5PY x CO98012-5R
ATX08322-1Ru	A02516-102LB x PALB0302-1
ATX11549-1P/Y	Huckleberry Gold x ND8555-8R
ATX11556-1P/Y	A99331-2RY x NDA050237B-1R
ATX11586-2R/Y	A05173-2RY x Mila
ATX11684-2W/Y	Nicola x POR02PG26-5
ATX13018-2Ru	A06015-13TE x A06084-1TE
ATX13134-3W/Y	NDA081451CB-1CY x CO02321-4W
ATX13287-1Ru	A07774-2VR x CO99053-3Ru
ATX15008-1Ru	A09001-14TE x A09004-2TE
ATX15025-2Ru	A10089-7TE x A09004-2TE
ATX15097-2Ru	Castle Russet x A98345-1
ATX15099-1Ru	Castle Russet x A10007-3
CO09076-3RU	CO03380-2RU x CO03202-1RU
CO09128-5W/Y	A00293-2Y x CO03060-2W/Y
CO09205-2RU	AOA95154-1 x CO95086-8RU
CO09218-4W/Y	ATC00293-1W/Y x CO00412-5W/Y
CO10064-1W/Y	CO00412-5W/Y x CO04099-4W/Y
CO10073-7W	CO02321-4W x CO02024-9W
CO10076-4W	CO03243-3W x CO02024-9W
CO10085-1RU	CO03364-5RU x Silverton Russet
CO10087-4RU	CO03367-1RU x Mercury Russet
CO10091-1RU	CO03371-4RU
CO10097-2W/Y	CO04067-10W/Y x CO00412-5W/Y
CO10098-5W/Y	CO04099-3W/Y x CO04099-4W/Y
CO11009-3RU	Fortress Russet x AC96052-1RU

Variety or Selection	Parentage
CO11023-2W	AC03433-1W x NY138
CO11023-9W	AC03433-1W x NY138
CO11037-5W	BC0894-2W x W2133-1
CO11250-1W/Y	CO99045-1W/Y x POR02PG26-5
CO11266-1W/Y	CO03060-2W/Y x A99433-5Y
COTX04050s-1P/P	CO97215-2P/P x CO97306-2P/P
COTX04193s-2R/Y	ATC98515-1R/Y x ND3574-5R
COTX05095-2Ru/Y	CO99045-1W/Y x AO96164-1
COTX08039-1R/R	CO03031-2R/R x POR01PG22-1
COTX08063-2Ru	A93157-6LS x A99073-1
COTX08322-10Ru	Blazer Russet x AC96052-1RU
COTX09022-3Rure/Y	A00286-3Y x CO99100-1RU
COTX10012-1Ryspl/Y	A00286-3Y x ATC00293-1W/Y
COTX10080-2Ru	CO03364-5RU x CO98067-7RU
COTX10118-4Wpe/Y	07S019 x AC03534-2R/Y
COTX10138-15Wpe/Y	AC99329-7PW/Y x AC03534-2R/Y
COTX12235-2W	AC00206-2W x AC03433-1W
COTX12428-1W	MSQ070-1 x CO02024-9W
COTX13029-2Ru/Y	AC06358-2W/Y x CO07039-3RU/Y
COTX13230-1W	AC06358-2W/Y x CO07044-3RU/Y
COTX13231-1W	AC98016-6W x Wischip
COTX13231-4W	AC98016-6W x Wischip
COTX13231-5W	AC98016-6W x Wischip
COTX13263-2W	CO02024-9W x Wischip
COTX14016-1Ru	Payette Russet x Pomerelle Russet
COTX14132-1Ru	POR06V12-3 x AC05039-2RU
COTX15083-1R	CO01198-2R x NDA050237B-1R
COTX15111-1R	CO05228-4R x ND8555-8R
COTX15111-3R	CO05228-4R x ND8555-8R
COTX15123-1Ru	CO07205-4RU x A06021-1T
COTX15123-2Ru	CO07205-4RU x A06021-1T
COTX15123-3Ru	CO07205-4RU x A06021-1T

Variety or Selection	Parentage
COTX15169-1Ru	CO09139-7RU x A06021-1T
COTX15169-2Ru	CO09139-7RU x A06021-1T
COTX15182-2Ru	CO09278-2RU x A06021-1T
COTX15271-1Ru	A03921-2 x Mercury Russet
COTX15345-1Y/Y	CO05037-3W/Y x CO00412-5W/Y
COTX15425-1Y/Y	CO10003-3W/Y x CO10018-3W/Y
COTX15500-2Ryspl/Y	CO10097-2W/Y x CO10018-3W/Y
COTX16005-1Ru	A03921-2 x Classic Russet
COTX16013-5W	AC00206-2W x AC03433-1W
COTX16054-1Ru	CO07070-13W x AC03433-1W
COTX16078-2W	CO10032-8W x Wischip
COTX16078-4W	CO10032-8W x Wischip
COTX16209-1Ru	CO09076-3RU x CO07049-1RU
COTX16212-2Y/Y	CO09128-3W/Y x CO09128-5W/Y
COTX16217-2Ru	CO09337-1RU x OR05039-4
Dal17001RuRua	??
Dal17001RuRub	??
NDTX059759-3RY/Y Pinto	ATND 99331-2 Pinto x ND 7834-2P
NDTX059828-2WZC	ND 4659-5R x ND 8524B-1R
NDTX081451CBs-1Y/Y	Dakota Diamond x Gala
NDTX092237C-2P/W	ND 049326C-2P x ND 7834-2P
NDTX113030C-3W	Dakota Diamond x ND7192-1
NDTX12135-1W	ND8559-20 x M3
NDTX12203AB-1W	ND028598c-1 x M2
NDTX12248Y	95043.11 x Dakota Ruby
NDTX1244-3W/Y	AND07358-1Y x ND7192-1
NDTX1246-5W/Y	AND07358-1Y x ND8304-2
NDTX13280CB-3W	ND081452CB-1 x ND7519-1
NDTX13315CB-1W	ND092181CB-16 x ND7519-1
NDTX14134Y	Waneta x ND860-2
NDTX14156-1R/Y	ATND99331-2PintoY x ND028742b-12PEY
NDTX14156-2R/Y	ATND99331-2PintoY x ND028742b-12PEY

Variety or Selection	Parentage
NDTX14156-3P	ATND99331-2PintoY x ND028742b-12PEY
NDTX14247CAB-1W	ND028799C-3 x ND102809AB-2
NDTX14247CAB-2W	ND028799C-3 x ND102809AB-2
NDTX14252B-2W	ND028888cB-1 x ND860-2
NDTX14263BC-3W	ND028984B-1 x ND113306C-2
NDTX1432Y	93057.1 x ND7799c-1
NDTX14362AB-1W	ND102809AB-2 x ND028984B-1
NDTX1443-2W	Dakota Crisp x ND860-2
NDTX1444-3W	Dakota Crisp x ND7799c-1
NDTX1444-4W	Dakota Crisp x ND7799c-1
NDTX1444-5W	Dakota Crisp x ND7799c-1
NDTX1467C-1R	Dakota Ruby x ND113300C-3RSY
NDTX1482YB-1W	Eva x Missaukee
NDTX1488-1Y	Gala x ND860-2
NDTX4784-7R	ND3574-5R x ND2050-1R
OR12133-10	A98345-10 x Silverton Russet
POR12NCK50-1	PA99N82-4 x Western Russet
POR14PG22-3	??
PORTX03PG25-2R/R	PA97B35-1 x PA99P7-2
TACNA	720087 x 386287.1
TX09403-15W	NY138 x Ivory Crisp
TX09403-21W	NY138 x Ivory Crisp
TX12484-2WZC	TX08402 x NDTX059828-2W
TX12484-3WZC	TX08402 x NDTX059828-2W
TX13590-9Ru	ND9687-3Ru x ND9852-1Ru
TX14646-1W	NDTX059759-3Pinto x BTX2332-1R
TX14668-3WZC	Waneta x ATTX07042-3W
TX17713-2R	BTX2332-1R x ATTX98465-1R/Y
TX17714-4R	AOTX93483-1R x NDTX05977s-1W
TX17733-1R	NDTX059761-1R/R x NDTX05977s-1W
TX17734-1Y/Y	NDTX05977s-1W x NDA081451CB-1CY
TX17734-2W/Y	NDTX05977s-1W x NDA081451CB-1CY

Variety or Selection	Parentage
TX17742-19R/R	ATX98500-3Pu/Y x NDTX059761-1R/R
TX17742-22P/P	ATX98500-3Pu/Y x NDTX059761-1R/R
TX17742-23P	ATX98500-3Pu/Y x NDTX059761-1R/R
TX17750-1R/R	AOTX93483-1R x NDTX059761-1R/R
TX17750-8R/R	AOTX93483-1R x NDTX059761-1R/R
TX17755-2P splash	BTX2332-1R x Gala
TX17759-5W	ATX05202s-3W/Y x TX09396-1W
TX17763-2W/Y	ATX00289-4W x NDTX05977s-1W
TX17765-1R/Y	ATX06264s-4R/Y x Gala
TX17773-3R/Y	ATX98500-2Pu/Y x NDTX05977s-1W
TX17788-4R	AOR07783-1 x TX12474-1P/P
TX17797-11Y/Y	NDA081451CB-1CY x TX09396-1W
TX17802-5R	COTX04193s-2R/Y x AOTX93483-1R
TX17805-10Y	NDTX059759-3RY/Y x TX12474-1P/P
TX17805-12R/R	NDTX059759-3RY/Y x TX12474-1P/P
TX17805-13R/R	NDTX059759-3RY/Y x TX12474-1P/P
TX17805-1RWpinto/R	NDTX059759-3RY/Y x TX12474-1P/P
TX17805-2R/R	NDTX059759-3RY/Y x TX12474-1P/P
TX17805-8R/R	NDTX059759-3RY/Y x TX12474-1P/P
TX17808-2R/Y	NDTX059759-3RY/Y x ATX00289-5R/Y
TX17815-1P/P	ATX98500-2Pu/Y x PORTX03-PG25-2R/R
TX17815-4P/P	ATX98500-2Pu/Y x PORTX03-PG25-2R/R
TX17846-1W	CO07070-10W x NDTX091908AB-2W
UNICA	387521.3 x Aphrodite

Appendix C. Disposition of Clones

Clone	Year	Texas Trial Level	Disposition for 2020 trials
AORTX09033-11W	2019	TXCH	Keep
AORTX09037-1W/Y	2019	SW	Move to SW, use clean seed from CO
AORTX09037-4W/Y	2019	TXCH	Keep, produce minitubers, verify Ryadg marker
AORTX09037-5W/Y	2019	TXCH	keep, enter in TC
ATTX07042-3W	2019	SW and NCPT	Reenter in SW and NCPT
ATTX10333-1W/Y	2019	TXCH EGSS	Keep EGSS20
ATTX10389-1W	2019	DROP	DROP
ATX13134-3W/Y	2019	TXCH NCPT	Keep, enter in TC and NCPT
COTX12235-2W	2019	TXCH	Keep
COTX12428-1W	2019	DROP	DROP
COTX13230-1W	2019	TXCH EGSS	Keep EGSS20
COTX13231-1W	2019	TXCH NCPT	Keep and enter in TC, enter in NCPT
COTX13231-4W	2019	TXCH NCPT	Keep, enter in TC and NCPT
COTX13231-5W	2019	DROP	DROP
COTX15345-1Y/Y	2019	DROP	DROP
COTX15425-1Y/Y	2019	DROP	DROP
COTX16013-5W	2019	TXCH	Keep
COTX16054-1Ru	2019	TXCH EGSS	Keep EGSS20
COTX16078-2W	2019	TXCH EGSS	Keep EGSS20
COTX16078-4W	2019	TXCH EGSS	Keep EGSS20
NDTX113030C-3W	2019	TXCH	Keep
NDTX12135-1W	2019	TXCH	Keep
NDTX12203AB-1W	2019	TXCH	Keep, produce minitubers in 2020
NDTX1244-3W/Y	2019	TXCH	Keep
NDTX1246-5W/Y	2019	TXCH	keep, enter in TC, very early
NDTX13280CB-3W	2019	TXCH	Keep and enter in TC
NDTX13315CB-1W	2019	TXCH EGSS	Keep EGSS20
NDTX14247CAB-1W	2019	TXCH EGSS	Keep EGSS20
NDTX14247CAB-2W	2019	TXCH EGSS	Keep EGSS20
NDTX14252B-2W	2019	TXCH EGSS	Keep EGSS20
NDTX14263BC-3W	2019	TXCH EGSS	Keep EGSS20
NDTX1432Y-2Y/Y	2019	TXCH	keep, enter in TC
NDTX14362AB-1W	2019	TXCH	keep, enter in TC
NDTX1444-5W	2019	TXCH NCPT	Keep and enter in TC, enter in NCPT
NDTX1482YB-1W	2019	TXCH NCPT	Keep, enter in TC and NCPT
NDTX1488-1W/Y	2019	DROP	DROP
TX09403-15W	2019	WR and NCPT	Advanced to WR and NCPT
TX09403-21W	2019	SW and NCPT	Reenter in SW and NCPT
TX12484-2WZC	2019	TXCH	Keep, produce minituber
TX12484-3WZC	2019	TXCH NCPT	Keep, send minitubers to CO in 2020, enter in NCPT
TX14668-3WZC	2019	DROP	DROP
TX17734-2W/Y	2019	TXCH EGSS	Keep EGSS20
TX17759-5W	2019	TXCH EGSS	Keep EGSS20
TX17846-1W	2019	TXCH EGSS	Keep EGSS20
ATTX10007-1Ru	2019	TXRU	Keep
ATTX10008-1Ru	2019	TXRU	Drop
ATTX10378-3Ru/Y	2019	TXRU	Keep
ATX08322-1Ru	2019	TXRU	Keep

Clone	Year	Texas Trial Level	Disposition for 2020 trials
ATX13018-2Ru	2019	TXRU	Keep, enter into TC
ATX13287-1Ru	2019	TXRU	Keep
ATX15008-1Ru	2019	TXRU	Keep
ATX15025-2Ru	2019	TXRU	Keep
ATX15097-2Ru	2019	TXRU	Keep
ATX15099-1Ru	2019	TXRU	Keep
COTX05095-2Ru/Y	2019	TXRU	Drop Graduated from WR
COTX08063-2Ru	2019	SW	Move to SW
COTX08322-10Ru	2019	WR	Move to SW
COTX09022-3Rure/Y	2019	TXRU	Keep
COTX10080-2Ru	2019	TXRU	Keep
COTX13029-2Ru/Y	2019	TXRU	Keep, enter into TC
COTX14016-1Ru	2019	TXRU	Drop
COTX14132-1Ru	2019	TXRU	Drop
COTX15123-1Ru	2019	TXRU	Keep
COTX15123-2Ru	2019	TXRU	Keep
COTX15123-3Ru	2019	TXRU	Keep
COTX15169-1Ru	2019	TXRU	Keep
COTX15169-2Ru	2019	TXRU	Keep
COTX15271-1Ru	2019	TXRU	Keep
COTX16005-1Ru	2019	TXRU	Keep
COTX16209-1Ru	2019	TXRU	Keep
COTX16217-2Ru	2019	TXRU	Keep
Dal17001RuRua	2019	TXRU	Keep, enter into TC
Dal17001RuRub	2019	TXRU	Drop
Reveille Russet	2019	TXRU	Keep
Russet Norkotah 223	2019	TXRU	Keep
Russet Norkotah 278	2019	TXRU	Keep
Russet Norkotah 296	2019	TXRU	Keep
TX13590-9Ru	2019	SW	Move to SW, in Texas, plant next to TXA549-1Ru
ATX11586-2R/Y	2019	Fing	Keep
Banana	2019	Fing	Keep
PORTX03PG25-2R/R	2019	Fing	Keep, continue increasing seed in CO enterWR
ATTX07230-4Yre/Y	2019	Lar	Keep, enter into TC
COTX08039-1P/P	2019	Lar	Drop
COTX10012-1Wrdspl/Y	2019	Lar	Keep, produce minitubers in 2020
COTX10118-4Wpe/Y	2019	Lar	Keep, transfer minitubers to CO in 2020
COTX10138-15Wpe/Y	2019	Lar	Keep, transfer minitubers to CO in 2020
NDTX092237C-2P/W	2019	Lar	Keep, transfer minitubers to CO in 2020
ATTX10265-4R/Y	2019	RD/Y	Keep, In TC – do not send to CO
ATTX11633-1RYPinto/Y	2019	RD/Y	Keep
ATX11549-1P/Y	2019	RD/Y	Keep, enter into TC
ATX11556-1P/Y	2019	RD/Y	Drop
NDTX059759-3R/Y Pinto	2019	RD/Y	Keep
Sierra Rose	2019	RD/Y	Keep
TX14646-1WR/YPinto	2019	RD/Y	Keep, enter into TC
ATTX11617-2R/Y	2019	Red	Drop
NDTX12248Y-1R	2019	Red	Keep

Clone	Year	Texas Trial Level	Disposition for 2020 trials
NDTX4784-7R	2019	Red	Keep, promote/share in 2020
ATX05175s-1R/Y	2019	Small	Keep Graduates from WR
ATX98444s-16R/Y	2019	Small	Keep, promote and share in 2021
COTX040505s-1P/P	2019	Small	Keep, produce minitubers
NDTX1467C-1R	2019	Small	Drop
ATX05202s-3W/Y	2019	Small	Drop
NDTX081451CBs-1Y/Y	2019	Small	Keep
AORTX11913-3Wre	2019	W/Y	Keep, enter into TC
ATX06264s-4R/Y	2019	WR	Returns to WR for second year evaluations
ATX08121-3P/Y	2019		DROP
ATX08121-5R	2019		DROP
COTX04193s-2R/Y	2019		Graduates from WR, Discontinue
Disposition of Colorado Seed			Disposition of Colorado
COTX08063-2RU			Move to SW increase for WR
NDTX059759-3RY/Y Pinto			Maintain
ATX05175s-1R/Y			Drop Seed all seed to Texas
COTX05095-2RU			Drop Seed all seed to Texas
ATX06264s-4R/Y			WR20 Maintain
ATX07042-3W			SW20 increase for WR
COTX08322-10RU			SW20 increase for WR
TX09403-15W			WR20 Maintain
TX09403-21W			SW20 increase for WR
AORTX09037-1W/Y			SW20 increase for WR
PORTX03PG25-2R/R			WR20
TX13590-9RU			SW20 increase for WR

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